

Unpacking  
and  
Installation  
Guide

# hp StorageWorks ESL E-Series Tape Library

First Edition (January 2004)

**Part Number:** 350800-001

This guide describes procedures for unpacking and installing the HP StorageWorks ESL E-Series tape library.



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HP StorageWorks ESL E-Series Tape Library Unpacking and Installation Guide  
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## About this Guide

This unpacking and installation guide provides information to help you:

- Unpack the library.
- Install the library.
- Load tape cartridges.
- Configure the library.

“About this Guide” topics include:

- [Overview](#), page 8
- [Conventions](#), page 9
- [Getting help](#), page 12
- [Getting help](#), page 12

## Overview

This section covers the following topics:

- [Intended audience](#)
- [Related documentation](#)

## Intended audience

This book is intended for use by authorized HP service personnel only.

## Related documentation

In addition to this guide, HP provides corresponding information:

- *HP StorageWorks ESL E-Series Pre-Installation Site Survey*
- *HP StorageWorks ESL E-Series Tape Library User Guide*
- *HP StorageWorks ESL E-Series Tape Library Service Manual*

## Conventions

Conventions consist of the following:

- Document conventions
- Text symbols
- Equipment symbols

### Document conventions

The document conventions included in [Table 1](#) apply in most cases.

**Table 1: Document Conventions**

Element	Convention
Cross-reference links	Blue text: <a href="#">Figure 1</a>
Key and field names, menu items, buttons, and dialog box titles	<b>Bold</b>
File names, application names, and text emphasis	<i>Italics</i>
User input, command and directory names, and system responses (output and messages)	Monospace font COMMAND NAMES are uppercase monospace font unless they are case sensitive
Variables	<monospace, italic font>
Website addresses	Blue, underlined sans serif font text: <a href="http://www.hp.com">http://www.hp.com</a>

### Text symbols

The following symbols may be found in the text of this guide. They have the following meanings:



**WARNING:** Text set off in this manner indicates that failure to follow directions in the warning could result in bodily harm or death.



**Caution:** Text set off in this manner indicates that failure to follow directions could result in damage to equipment or data.

---

**Note:** Text set off in this manner presents commentary, sidelights, or interesting points of information.

---

## Equipment symbols

The following equipment symbols may be found on hardware for which this guide pertains. They have the following meanings:



Any enclosed surface or area of the equipment marked with these symbols indicates the presence of electrical shock hazards. Enclosed area contains no operator serviceable parts.

**WARNING:** To reduce the risk of personal injury from electrical shock hazards, do not open this enclosure.

---



Any RJ-45 receptacle marked with these symbols indicates a network interface connection.

**WARNING:** To reduce the risk of electrical shock, fire, or damage to the equipment, do not plug telephone or telecommunications connectors into this receptacle.

---



Any surface or area of the equipment marked with these symbols indicates the presence of a hot surface or hot component. Contact with this surface could result in injury.

**WARNING:** To reduce the risk of personal injury from a hot component, allow the surface to cool before touching.

---



Power supplies or systems marked with these symbols indicate the presence of multiple sources of power.

**WARNING:** To reduce the risk of personal injury from electrical shock, remove all power cords to completely disconnect power from the power supplies and systems.

---



Any product or assembly marked with these symbols indicates that the component exceeds the recommended weight for one individual to handle safely.

**WARNING:** To reduce the risk of personal injury or damage to the equipment, observe local occupational health and safety requirements and guidelines for manually handling material.

---

## Getting help

If you still have a question after reading this guide, contact an HP authorized service provider or access our website: <http://www.hp.com>.

## HP technical support

Telephone numbers for worldwide technical support are listed on the following HP website: <http://www.hp.com/support/>. From this website, select the country of origin.

---

**Note:** For continuous quality improvement, calls may be recorded or monitored.

---

Be sure to have the following information available before calling:

- Technical support registration number (if applicable)
- Product serial numbers
- Product model names and numbers
- Applicable error messages
- Operating system type and revision level
- Detailed, specific questions

## HP storage website

The HP website has the latest information on this product, as well as the latest drivers. Access storage at: <http://www.hp.com/country/us/eng/prodserv/storage.html>. From this website, select the appropriate product or solution.

## HP authorized reseller

For the name of your nearest HP authorized reseller:

- In the United States, call 1-800-345-1518
- In Canada, call 1-800-263-5868
- Elsewhere, see the HP website for locations and telephone numbers: <http://www.hp.com>.



# Unpacking the Library

## 1

This chapter describes the following sections:

- [Selecting an installation location](#), page 14
- [Preparing for the installation](#), page 18
- [Unpacking the library](#), page 20
- [Setting up the library](#), page 30
- [Storing the packaging materials](#), page 39



**Caution:** Only qualified HP field service engineers should unpack the HP StorageWorks ESL E-Series tape library.

## Selecting an installation location

When choosing an installation site for the HP StorageWorks ESL E-Series tape library, consider the following requirements:

- [Floor space](#), page 15
- [Floor clearance](#), page 16
- [Floor strength and inclination](#), page 16
- [Power and grounding](#), page 16
- [Environmental conditions](#), page 17

---

**Note:** These requirements are also described in the *HP StorageWorks ESL E-Series Tape Library User's Guide*.

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Floor space

Figure 1 shows the minimum floor space required by the library.

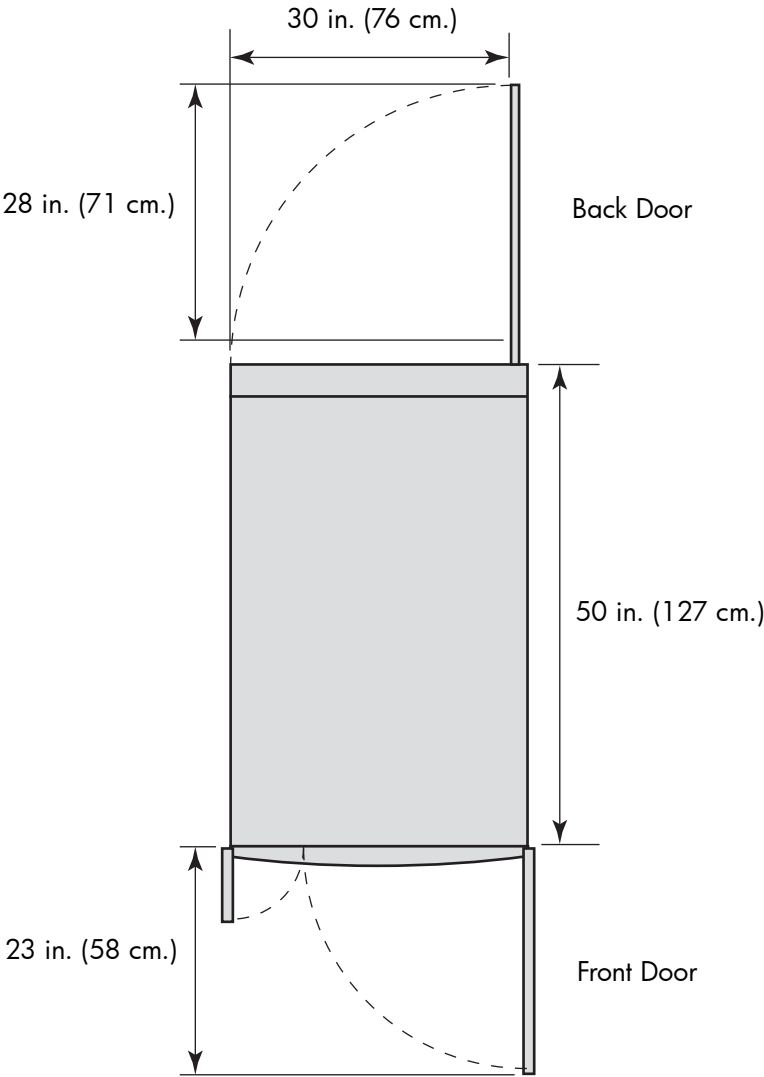


Figure 1: Floor space requirements

## Floor clearance

The library has a floor clearance of 0.75 inch (19 mm). Place the library on a level, uncarpeted floor free of defects.

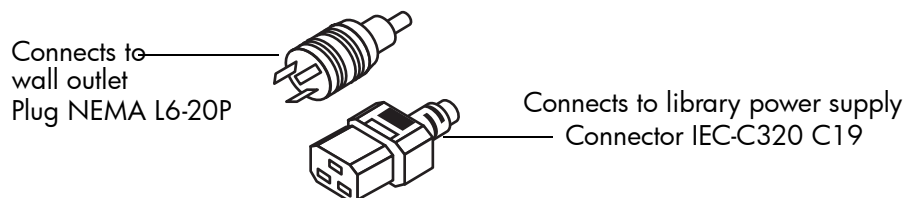
## Floor strength and inclination

The floor at the installation site must be rated at 250 lb/ft<sup>2</sup> (1221 kg/m<sup>2</sup>). This is sufficient to support a fully loaded library.

The floor must be level to within 0.25 inch (6.4 mm) over a 6 ft by 6 ft (1.83 m by 1.83 m) area.

## Power and grounding

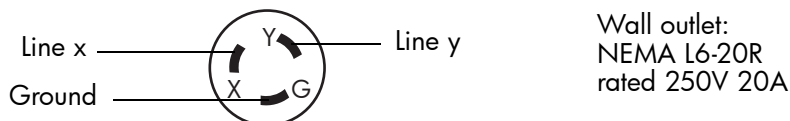
For the United States and Canada, one or two UL/CSA-certified power cords are supplied with each library. Each power cord uses a 14/3 SJT cord, a L6-20P plug, and an IEC-C320 C19 female connector (see [Figure 2](#)).



**Figure 2: Power supply cord**

The library is rated 200-240V~, 50-60Hz.

Power requirements may require modification of the facility's existing power capabilities by a qualified electrician. The required wall outlet for the United States and Canada is rated at 250V 20A (see [Figure 3](#)).



**Figure 3: Wall outlet (NEMA L6-20R rated 250V 20A)**

Two dedicated wall outlets and a 20-amp circuit breaker are required to provide power to the library. Outside of North America, replace the supplied power cord(s) with harmonized 3 x 1.5 mm<sup>2</sup> power cord(s) that meet local requirements, and install the appropriate wall outlet.



**WARNING:** This product can only be used with an HP approved power cord for your specific geographic region. Use of a non-HP approved power cord may result in: 1) not meeting individual country specific safety requirements; 2) insufficient conductor ampacity that could result in overheating with potential personal injury and/or property damage; and 3) an unapproved power cord could fracture resulting in the internal contacts being exposed, which potentially could subject the user to a shock hazard. HP disclaims all liability in the event a non-HP approved power cord is used.

---

**Note:** More information on the electrical requirements is provided in the *HP StorageWorks ESL E-Series Pre-Installation Site Survey*.

---



**Caution:** To avoid damage to the library and risk to personal safety, the library must be connected to a grounded electrical outlet.

---

## Environmental conditions

The installation site must have the following environmental conditions:

- Humidity: 20%-80% noncondensing
- Temperature: 15°C to 32°C (59°F to 90°F)
- Altitude: sea level to 10,000 feet

These environmental conditions apply when the library is in operation.

---

**Note:** For additional library specifications (including environmental requirements during shipping and storage), see the *HP StorageWorks ESL E-Series Tape Library User's Guide*.

---

## Preparing for the installation

This section describes the preparations needed before installing the library:

- [Tools for installation](#), page 18
- [Taking ESD precautions](#), page 19

## Tools for installation

These tools are needed for unpacking and setting up the library:

- #2 Phillips screwdriver
- Snips for metal bands
- Safety goggles
- Ratchet with 3/8-inch socket (or 3/8-inch open-end wrench)
- Ratchet with 3/4-inch socket (or 3/4-inch open-end wrench)
- Ratchet with 7/16-inch socket (or 7/16-inch open-end wrench)
- Carpenter's level

---

**Note:** A 12-inch socket extension is recommended for removing the counter-weight shipping restraint.

---

## Taking ESD precautions



**Caution:** Some components within the library contain static-sensitive parts. To avoid damaging these parts while performing installation procedures, always observe the following precautions.

---

- Keep the library powered off during all installation procedures.
- Keep the library power cord plugged into a grounded power outlet, except when working with AC electrical components.
- Avoid contact with power supplies, EMI filters, and AC electrical components while the library is connected to a power outlet.
- Use an antistatic wrist strap.
- Keep static-sensitive parts in their original shipping containers until ready for installation.
- Do not place static-sensitive parts on a metal surface. Place them inside their protective shipping bag or on an antistatic mat.
- Avoid touching connectors and other components.

---

**Note:** Dry climates and cold-weather heating environments have lower relative humidity and are more likely to produce static electricity.

---

## Unpacking the library

This section explains how to unpack the library and move it to its final installation location. The library is shipped in packing materials designed to protect it from damage during transit. By following these instructions, you help ensure that the library will continue to be safeguarded after it arrives at the installation site.

The unpacking procedures include the following:

- [Receiving the library](#), page 20
- [Unpacking the library](#), page 20
- [Moving the library to the installation site](#), page 29
- [Setting up the library](#), page 30
- [Storing the packaging materials](#), page 39

## Receiving the library

Unpack the library as close to the installation site as possible. Inspect the shipping pallet and carton for damage that may have occurred during shipment. Report any damage to the shipper.



**WARNING:** Libraries weigh between 1,135 pounds (515 kg) and 1,459 pounds (662 kg), depending on their configuration. At least two people should move and install the library.

---

## Unpacking the library

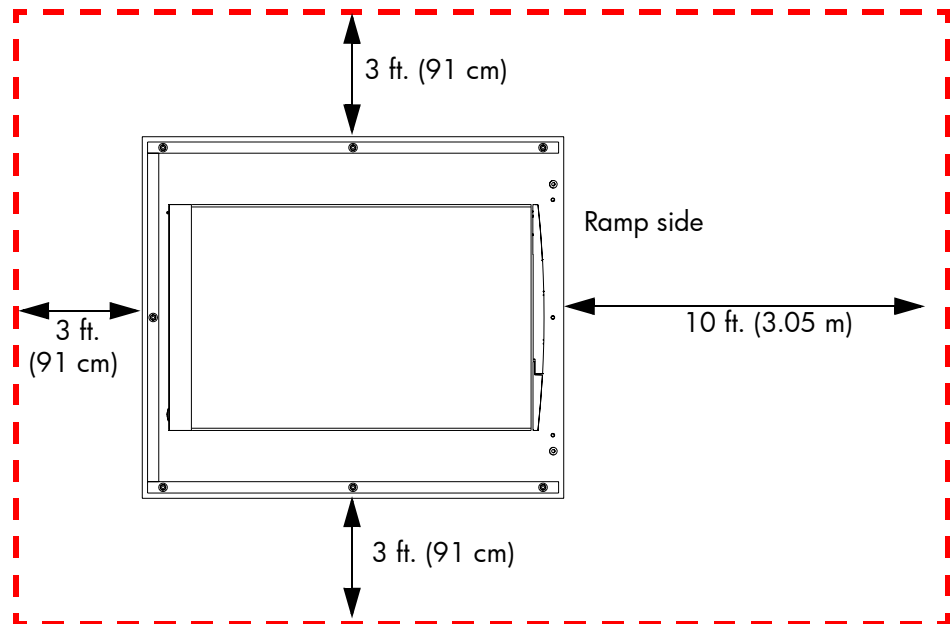
To unpack the library:

1. Note the side of the pallet where the library will be unloaded. The library may be unloaded from only the ramp side of the pallet (see [Figure 4](#) on page 21).



2. Verify the minimum floor space requirements (see [Figure 4](#)).

**Note:** [Figure 4](#) shows the minimum floor space required by the library at its unboxing site. Unboxing the library requires a minimum of 3 feet (91 cm) on all sides. The side used for the unloading ramp requires 10 feet (3.05 m). The minimum height required for unpacking the library is 85 inches (2.16 meters).



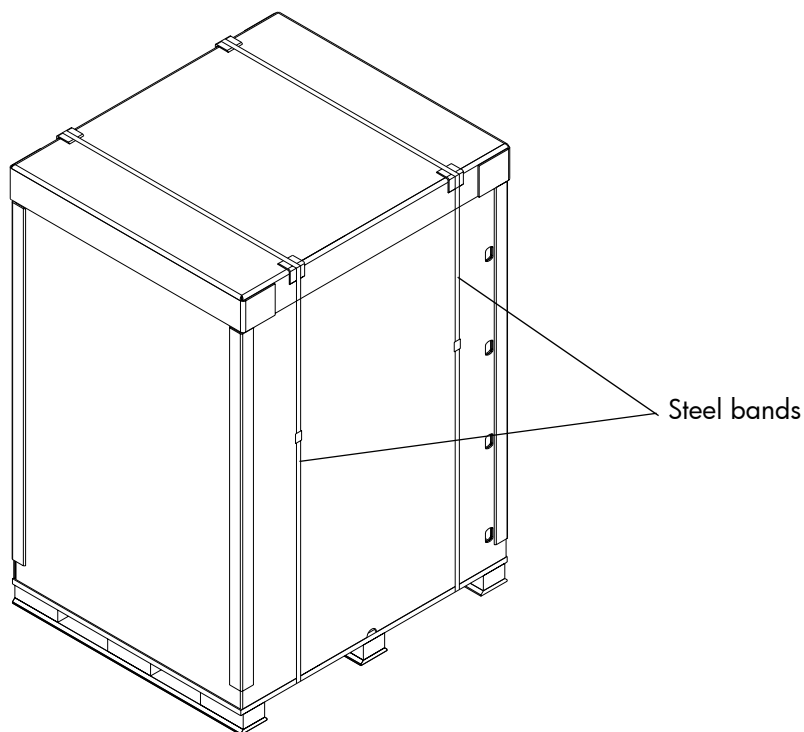
**Figure 4: Minimum floor space requirements - unpacking site**

3. Cut the two steel bands that secure the library and packing material to the pallet (see [Figure 5](#)).



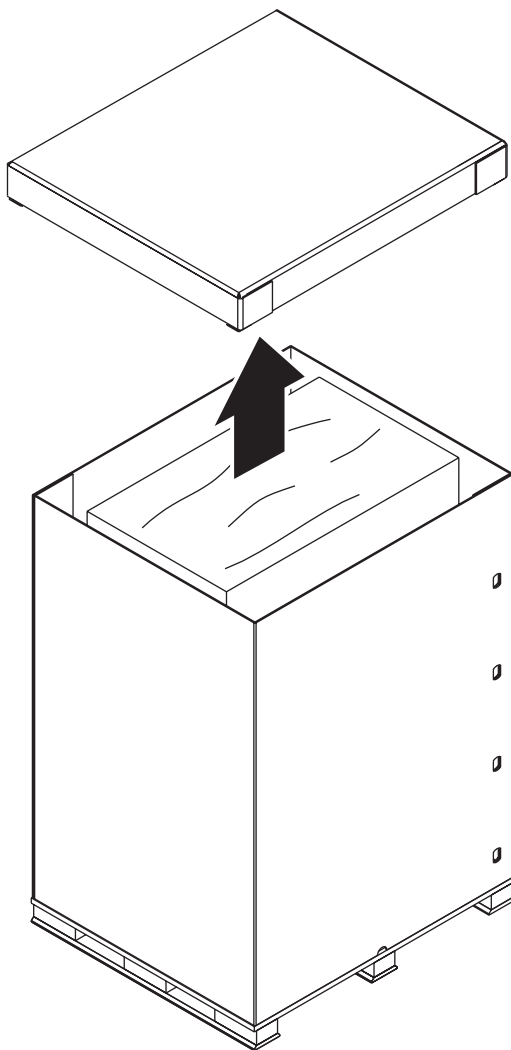
**Caution:** The steel bands are under tension and may snap away when cut. Wear safety goggles when cutting the steel bands.

---



**Figure 5: Removing the steel bands**

4. Lift the cardboard box top cover straight up and off of the pallet (see [Figure 6](#)).



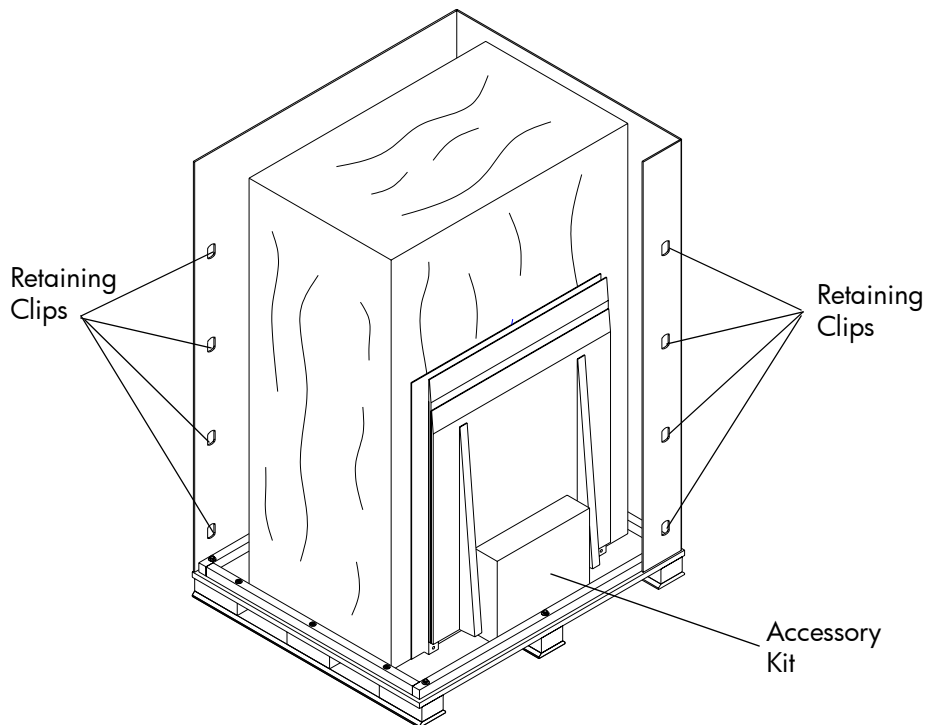
**Figure 6: Removing the box top cover**

5. Remove the eight cardboard box retaining clips and unwrap the cardboard box from around the library (see [Figure 7](#)).

---

**Note:** The cardboard box is in two sections.

---



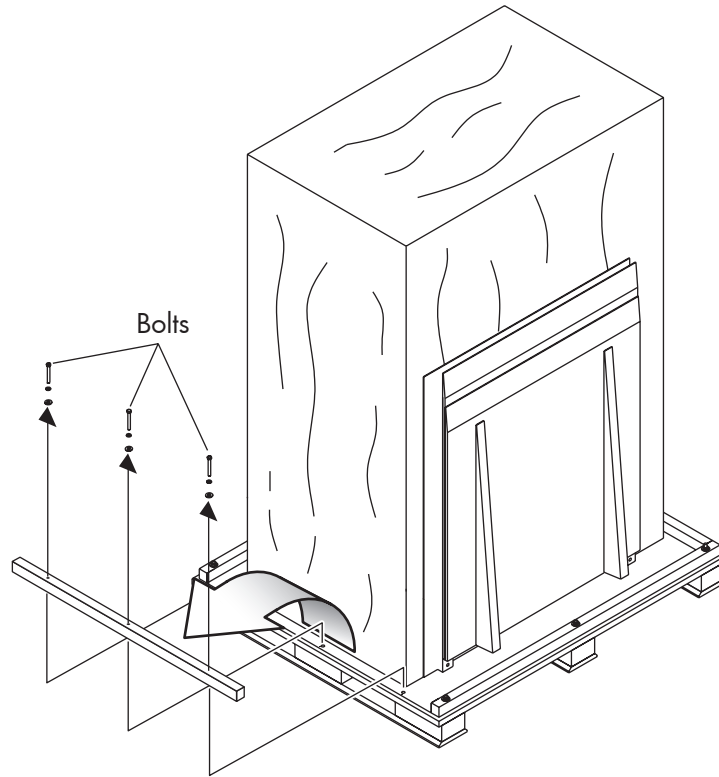
**Figure 7: Removing the cardboard box**

---

**Note:** Inspect the library for any damage that may have occurred during shipment. Pay special attention to areas behind any scuffs on the anti-static bag. If damage is detected, contact your authorized service representative.

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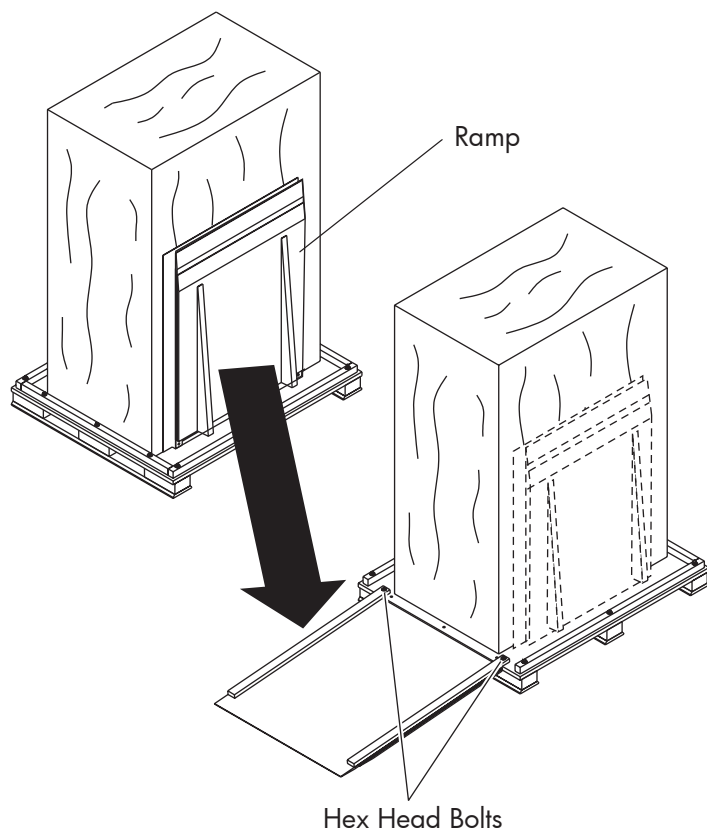
6. Remove the accessory kit from in front of the pallet ramp (see [Figure 7](#)). Set it aside for later use at the installation site.
7. Remove the 3-3/8-inch hex head bolts, lock washers, and flat washers from the front rail of the pallet and set aside. Remove the front rail from the pallet (see [Figure 8](#)).



**Figure 8: Removing the front pallet rail**

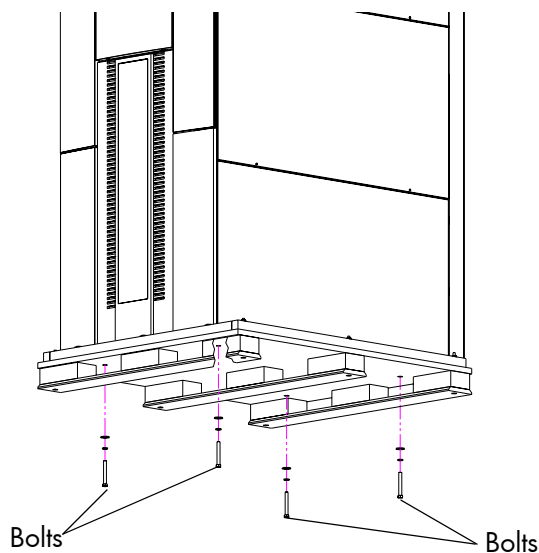
8. Cut the tape securing the ramp against the library.

9. Use two of the 3-3/8-inch hex head bolts, lock washers, and flat washers removed in [step 7](#) to secure the ramp to the pallet (see [Figure 9](#)).



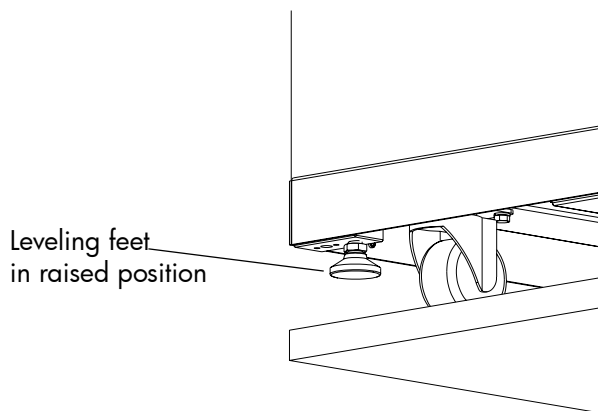
**Figure 9: Attaching the pallet ramp**

10. Remove the four 3/4-inch restraining bolts securing the library to the shipping pallet (see [Figure 10](#)). One restraining bolt is located near each leveling foot on the library.



**Figure 10: Removing the restraining bolts**

11. Raise the leveling feet securing the library to the pallet (see [Figure 11](#)).



**Figure 11: Raising the leveling feet**



## Moving the library to the installation site

1. Map a route to the installation site.
2. Carefully roll the library down the ramp and guide it to the installation site (see [Figure 12](#)).



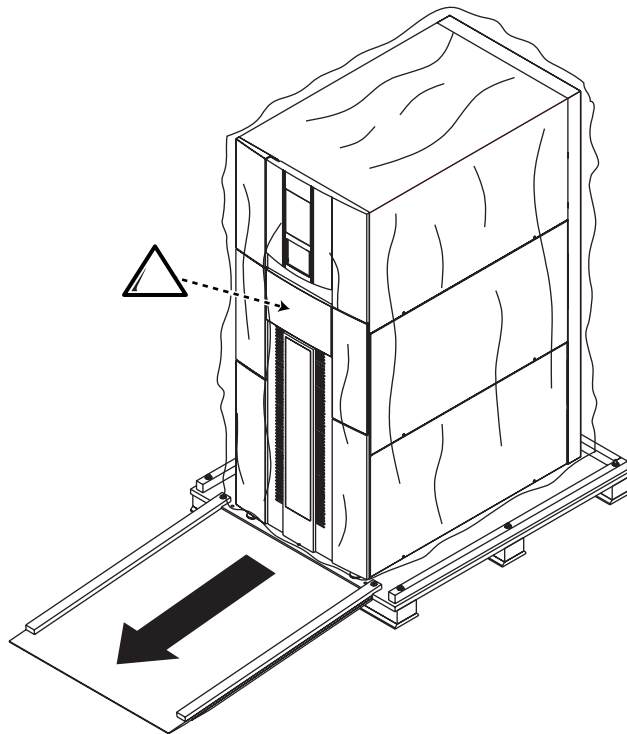
**WARNING:** Libraries weigh between 1,135 pounds (515 kg) and 1,459 pounds (662 kg) depending on their configuration. At least two people should move and install the library.

---



**Caution:** Be aware that the laptop tray may open up during this process. If so, return it to the closed position before continuing.

---



**Figure 12: Rolling the library down the ramp**

## Setting up the library

1. Stabilize the library by lowering the leveling feet:
  - a. Rotate each foot of the library until it makes contact with the floor.
  - b. Rotate each foot an additional 1/4 turn to begin raising the library.
2. Remove the antistatic bag covering the library.
3. Inspect the library for any damage that may have occurred during shipment.
4. Open the accessory kit.

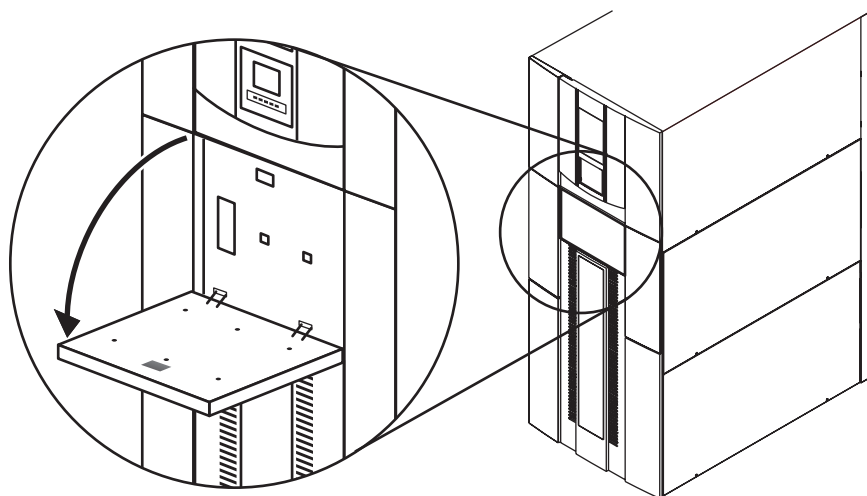
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**Note:** The accessory kit contents vary depending on the configuration ordered. If you believe a part is missing or is damaged, contact your HP sales representative.

---

5. Using the key from the accessories kit, unlock and open the library doors (front and back):
  - a. Lift each door handle straight up and then turn the handle to unlatch each door.

The key lock for the front library door is located behind the laptop tray (see [Figure 13](#) on page 31). Open the laptop tray by gently pushing on the top of the tray to release it from the cabinet. Support the tray until it is fully opened.
  - b. Gently pull each door handle to open the door.



**Figure 13: Opening the laptop tray**

6. Using the power cables from the accessory kit, connect the library to a grounded power source:
  - a. Connect the cables to the library's main power source.
  - b. Route the cables through the cable access hole at the bottom of the cabinet.
  - c. Connect the cables to a grounded power source.

---

**Note:** Do not power on the library. The two breaker switches on the power distribution unit should remain in the off position (to the left) until the library is fully installed.

---

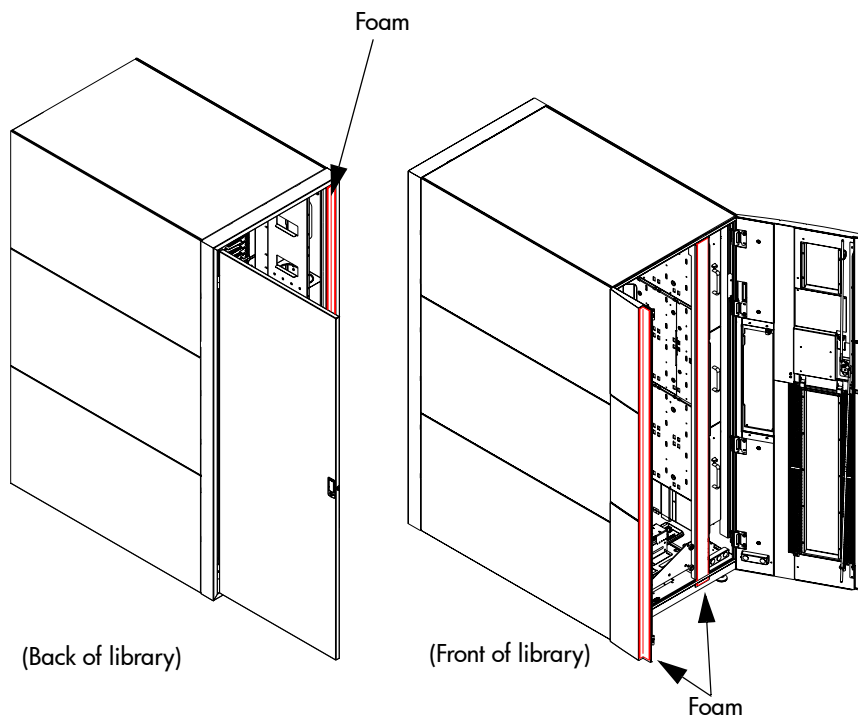


**WARNING:** This product can only be used with an HP approved power cord for your specific geographic region. Use of a non-HP approved power cord may result in: 1) not meeting individual country specific safety requirements; 2) insufficient conductor ampacity that could result in overheating with potential personal injury and/or property damage; and 3) an unapproved power cord could fracture resulting in the internal contacts being exposed, which potentially could subject the user to a shock hazard. HP disclaims all liability in the event a non-HP approved power cord is used.

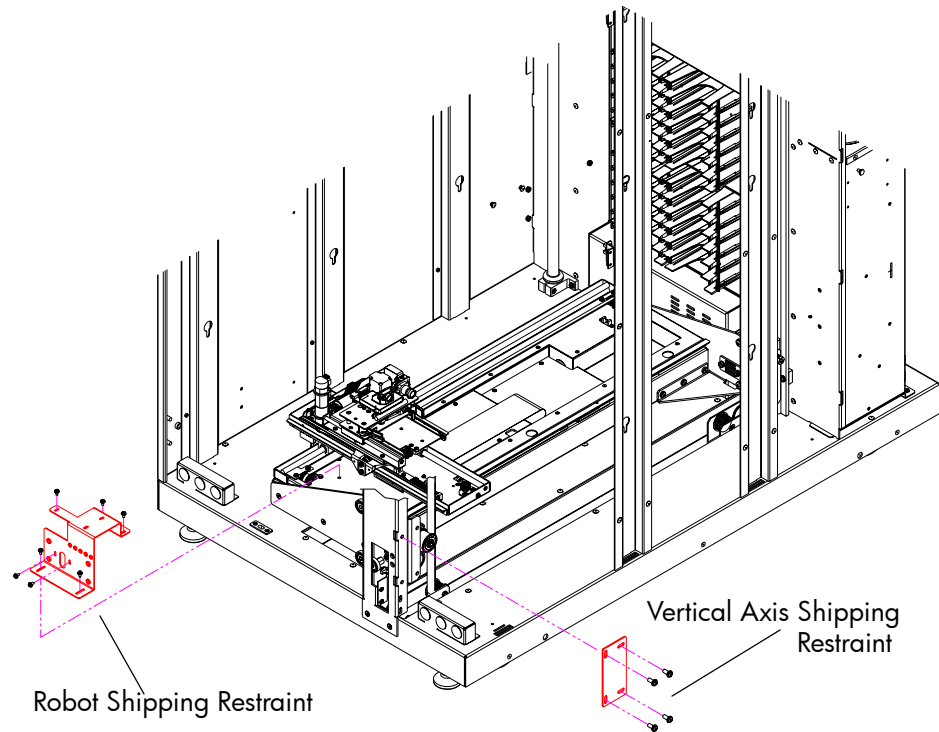
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7. From the front of the library, remove the foam from the Y-axis cover plate, from the left front door, and also from the back door frame (see [Figure 14](#)). Discard the foam.

**Figure 14: Removing the shipping foam**

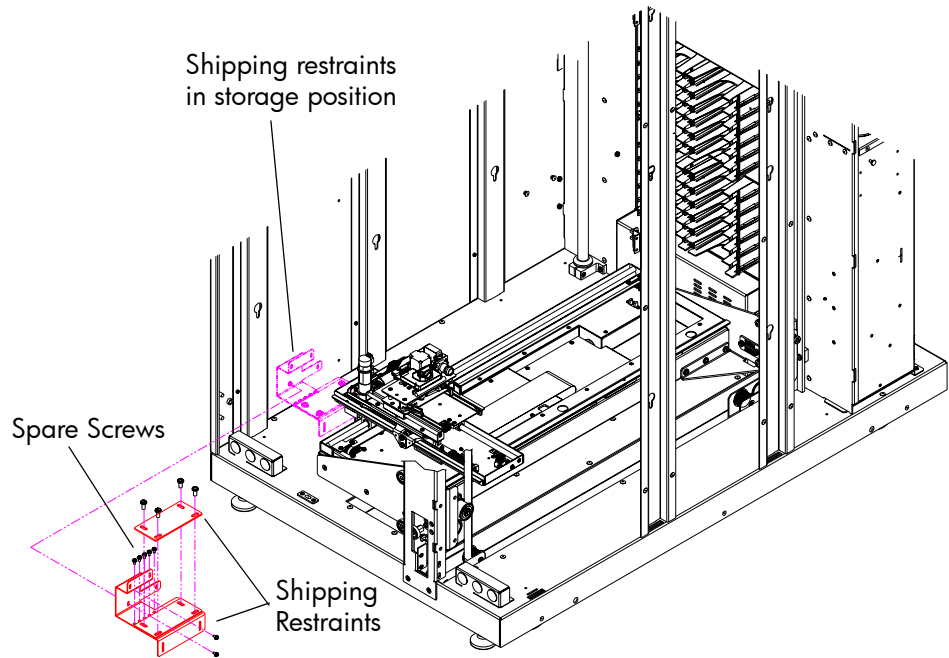


8. From the front of the library, remove two shipping restraints using a #2 Phillips screwdriver (see [Figure 15](#)). The vertical axis shipping restraint is secured by four screws, and the robot shipping restraint is secured by seven screws.



**Figure 15: Removing the vertical axis and robot shipping restraints**

9. Attach the vertical axis shipping restraint to the robot shipping restraint using the four screws removed from the vertical axis shipping restraint in [step 8](#) (see [Figure 16](#)).



**Figure 16: Storing the vertical axis and robot shipping restraints**

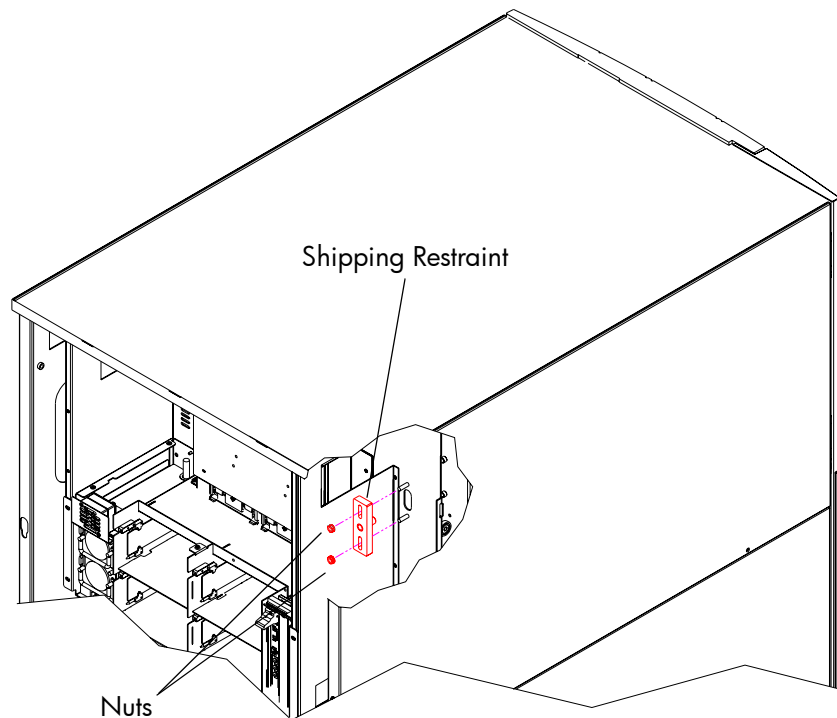
10. Store the five spare screws in the robot shipping restraint as shown in [Figure 16](#).
11. Use the remaining two screws to secure the combined shipping restraints in the library, as shown in [Figure 16](#).

12. From the back of the library use a ratchet with a 7/16-inch socket or a 7/16-inch open-end wrench to remove the two nuts securing the counterweight shipping restraint to the back wall of the library cabinet (see [Figure 17](#)).

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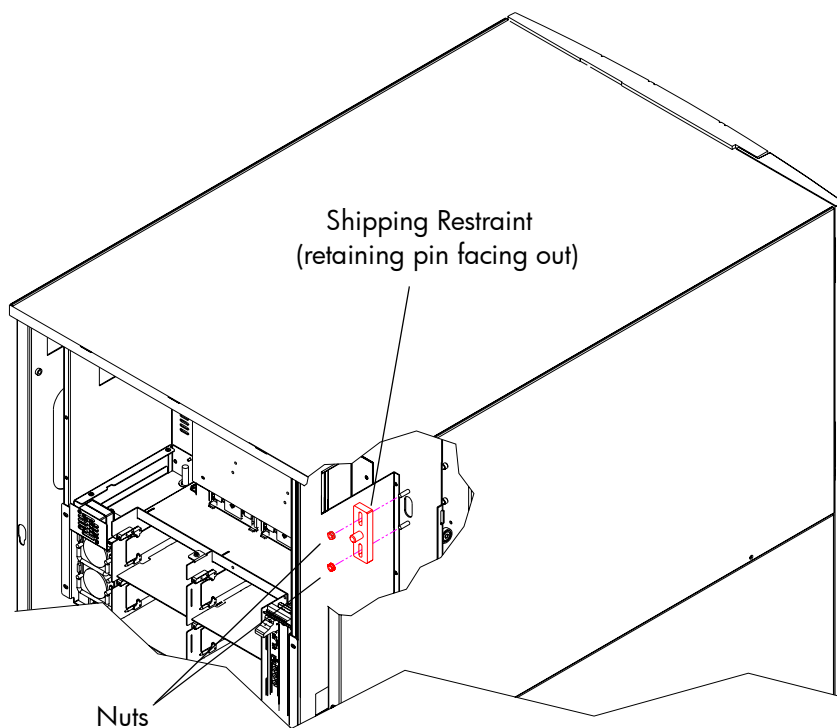
**Note:** HP recommends that you use a 12-inch socket extension.

---



**Figure 17: Removing the counterweight shipping restraint**

13. Reverse the counterweight shipping restraint so that the pin is facing out. Reinstall it onto the back wall of the library using the two nuts removed in [step 12](#) (see [Figure 18](#)).

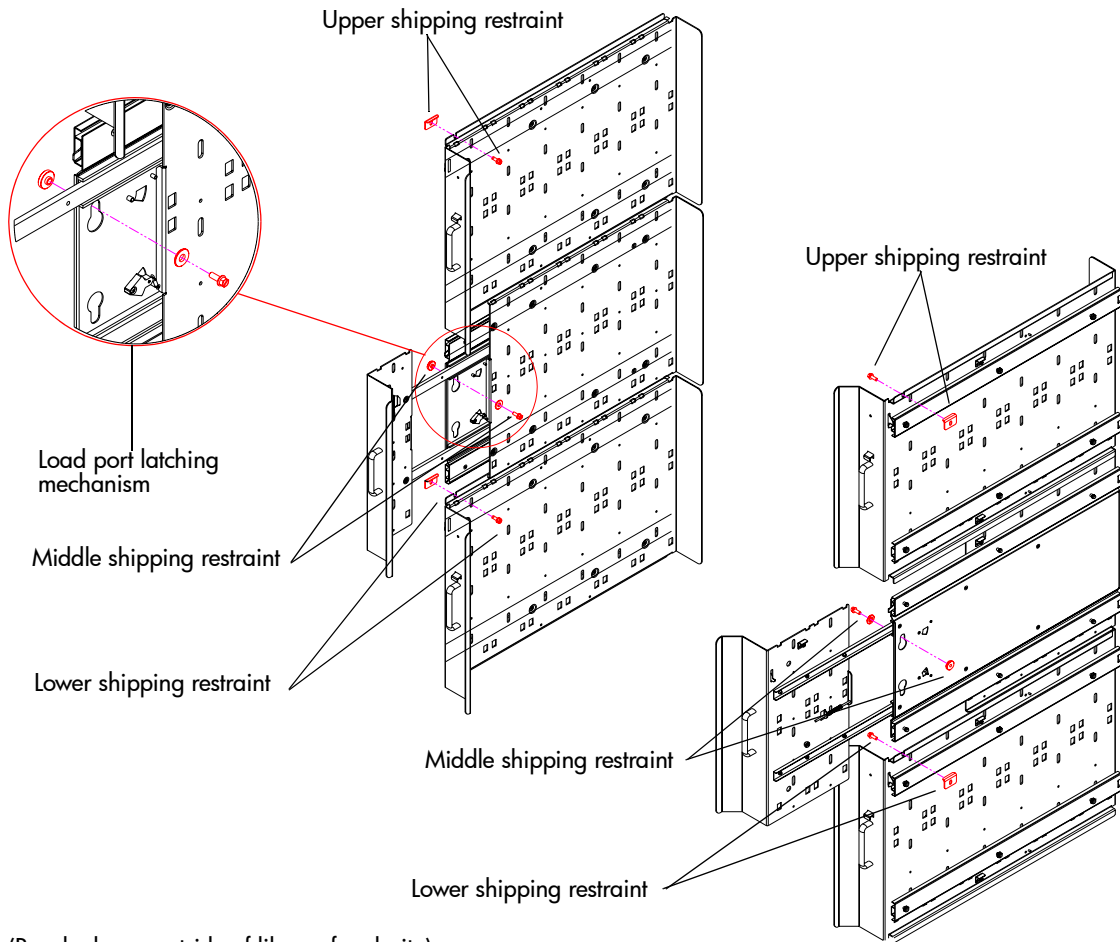


**Figure 18: Storing the counter weight shipping restraint**



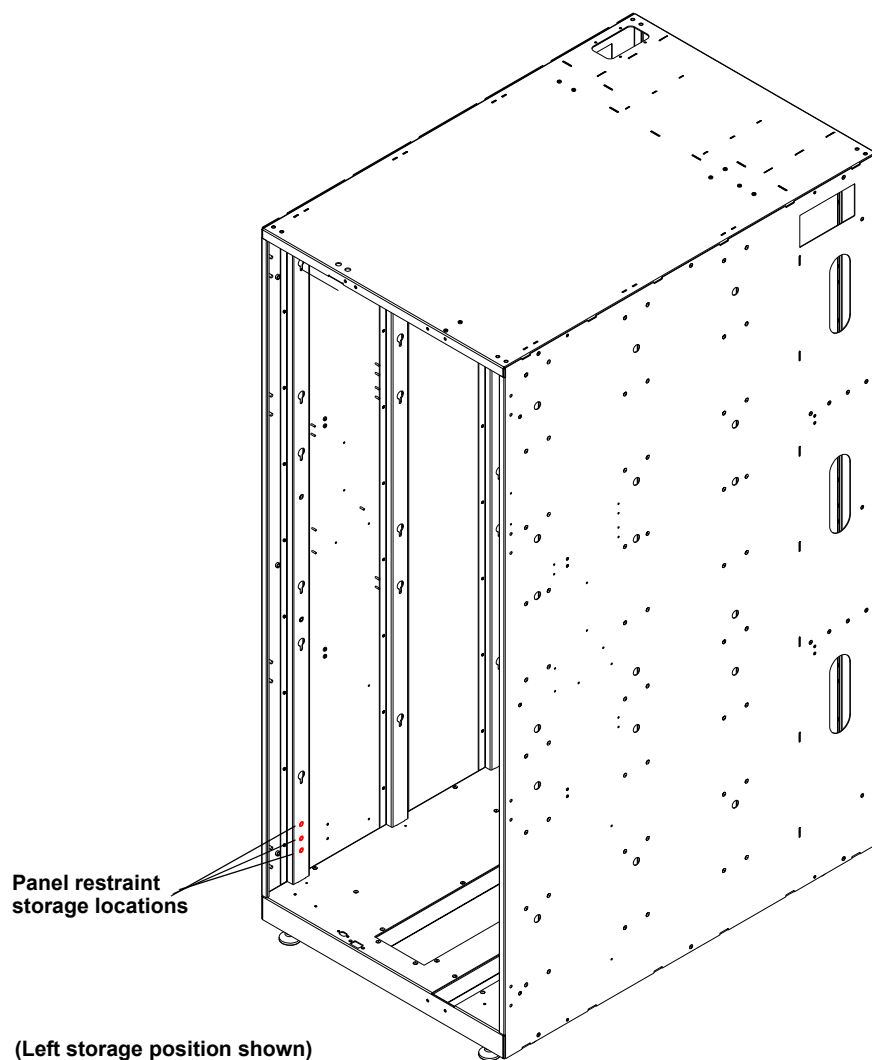
14. Remove the six panel shipping restraints (three on each side) with a 1/4-in nut driver (see [Figure 19](#)).

**Figure 19: Removing the panel shipping restraints**



15. Store the panel shipping restraint hardware (three sets on each side) on the lower cabinet frame (see [Figure 20](#)).

**Figure 20: Storing the panel shipping restraints**



16. Level the library using a carpenter's level.

## Storing the packaging materials

Store the library packaging materials:

1. Detach the ramp and place on top of the pallet.
2. Fold the shipping bag.
3. Place the shipping bag, foam cap, screws, and other packaging materials on the pallet.
4. Collapse the cardboard box.
5. Place the cardboard box on top of the packaging materials on the pallet.
6. Secure the packaging materials to the pallet and store for future use.



# Installing the Library

## 2

This chapter describes the procedures necessary to get your library up and running. Ensure you have the following equipment and accessories available before installing the library:

- Power source (see “[Power and grounding](#)” on page 16 for power requirements)
- One HP StorageWorks e2400-160 Interface Controller for every four tape drives

---

**Note:** Each e2400-160 interface controller ships with four SCSI cables and one Ethernet cable.

---

- Two Fibre Channel cables for every e2400-160 interface controller
- One Fibre Channel cable for the e1200-160 robotics controller card

---

**Note:** Fibre Channel cables are not included with the library or library kits.

---

This chapter includes the following sections:

- [Installing drive clusters](#), page 42
- [Installing tape drives](#), page 53
- [Installing Fibre Channel interface controllers](#), page 57
- [Cabling the library](#), page 59
- [Powering on the library](#), page 71

## Installing drive clusters

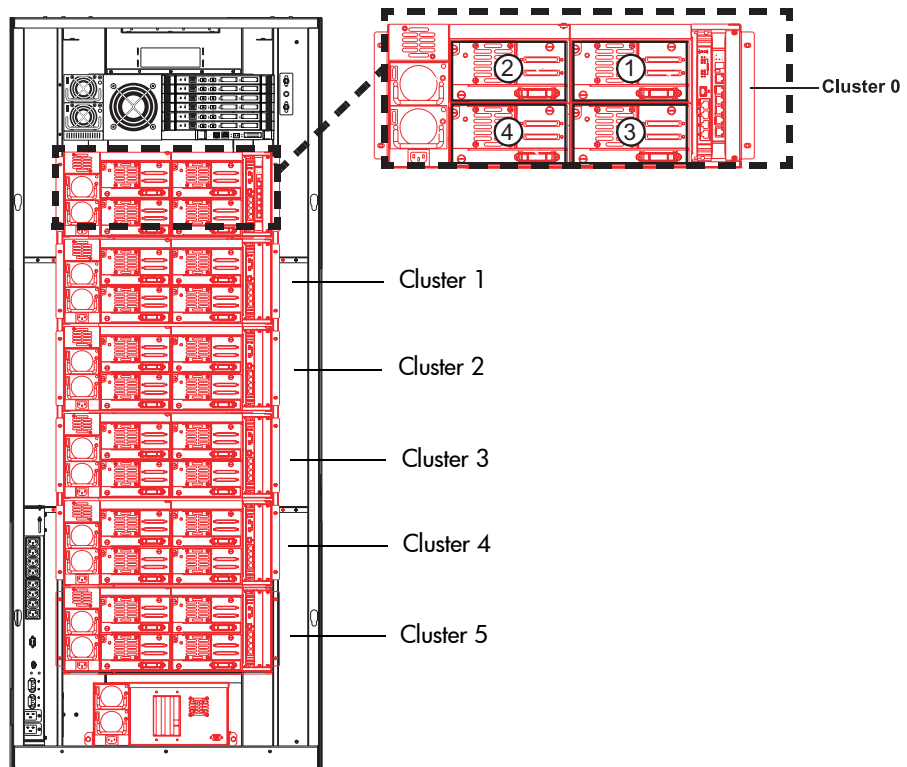


**Caution:** Before continuing with the installation procedure, ensure the library is powered off and that the main switches on the power distribution unit are turned off (to the left).

The library may contain up to 24 drives in 6 drive clusters (see [Figure 21](#)). The library ships with one drive cluster already installed:

- If you need to install additional drive clusters, proceed to “[Installing additional drive clusters](#)” on page 43.
- If you do not require additional clusters to be installed, proceed to “[Connecting drive cluster cables](#)” on page 46.

**Figure 21: Drives cluster numbering**



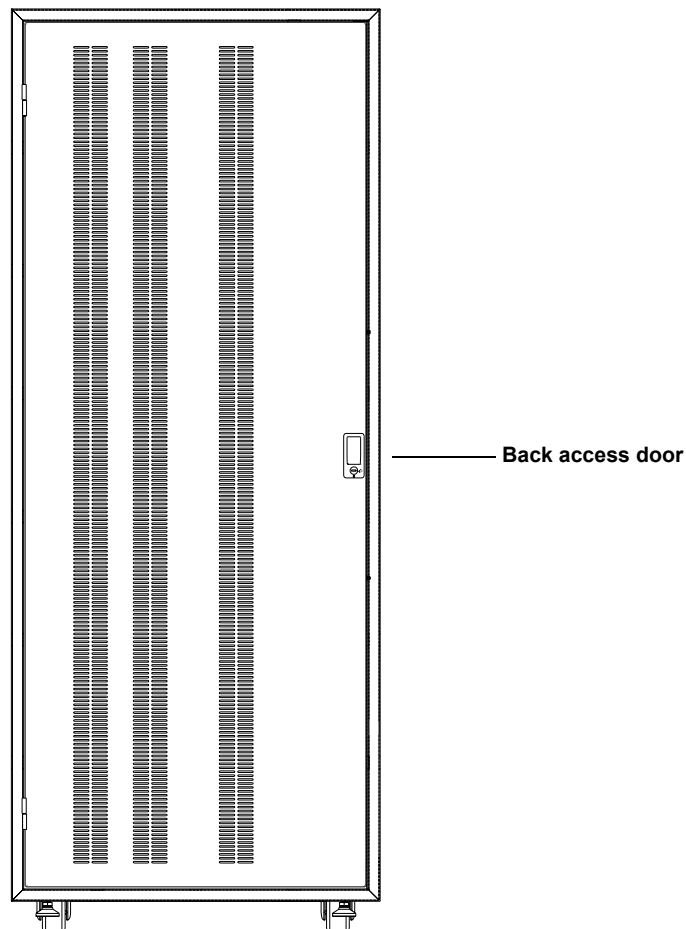
## Installing additional drive clusters



**Caution:** Parts can be damaged by electrostatic discharge. Keep parts in their containers until needed. Ensure you are properly grounded when touching static-sensitive components.

1. Make sure the back door of the library is open to access drive cluster bays (see [Figure 22](#)).

**Figure 22: Library (back view)**

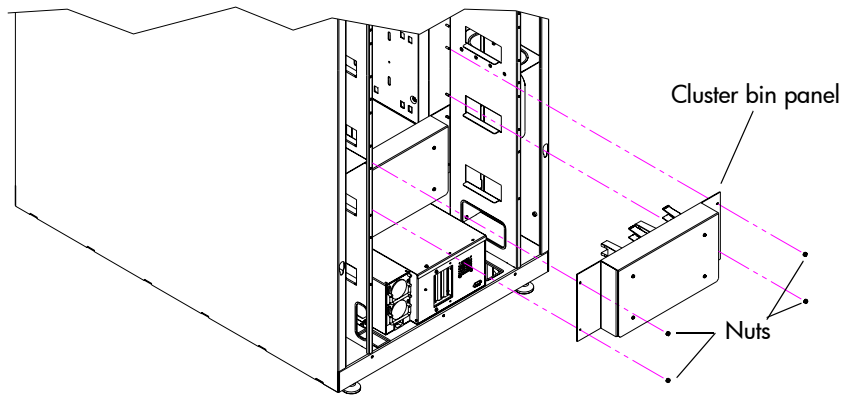


**Note:** Drive clusters must be installed sequentially from top to bottom (clusters 0 through 5). There can be no gaps between drive clusters.

---

2. Before continuing with the installation procedure, ensure the library is powered off and that the main switches on the power distribution unit are in the off (left) position.
3. Using a 11/32-inch nut driver, remove the four nuts securing the cluster bin panel to the library (see [Figure 23](#)).

**Figure 23: Removing a cluster bin panel**

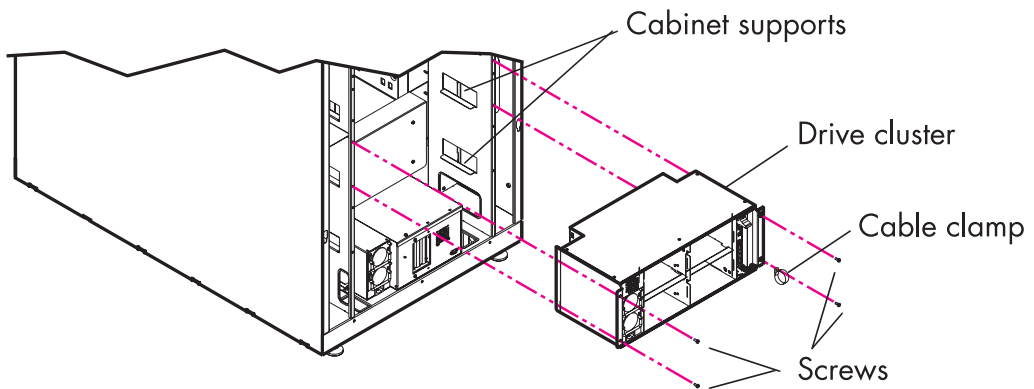




**Note:** Retain the cable clamps and ensure they remain attached to the drive clusters (see [Figure 24](#)). The clamps will be used for routing cables later in this procedure.

4. Align the drive cluster with the cabinet supports and insert it into the library.
5. Add the cable clamp on top of the lower right screw hole on the cluster.
6. Secure the cluster to the library frame using four Phillips screws (see [Figure 24](#)).

**Figure 24: Installing the drive cluster**



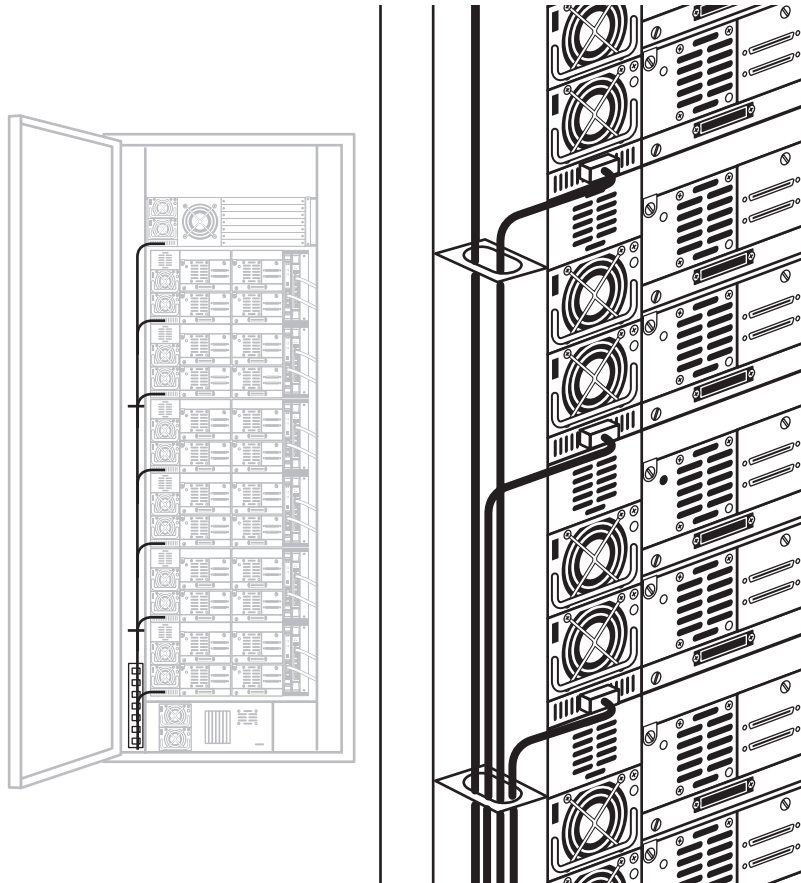
7. Repeat [step 2](#) through [step 6](#) for each additional drive cluster to be installed.

## Connecting drive cluster cables

To connect the drive cluster cables:

1. Connect a power cable on the front of the AC Failover box located on the lower left side of the library to the drive cluster power connector below the power supplies by routing it through the cable access hole (see [Figure 25](#)).

**Figure 25: Connecting the cluster power cable**



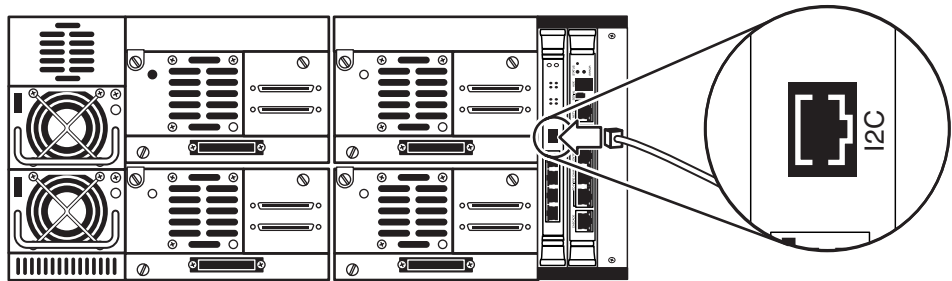
2. Connect the I<sup>2</sup>C communications cable located to the right of each drive cluster to the I<sup>2</sup>C connector on the cluster controller (see [Figure 26](#)).

---

**Note:** I<sup>2</sup>C cables are labeled "P0" through "P5" and correspond to the drive clusters. Ensure you use the appropriate cable for the drive cluster being installed (that is, cable "P1" for drive cluster "1").

---

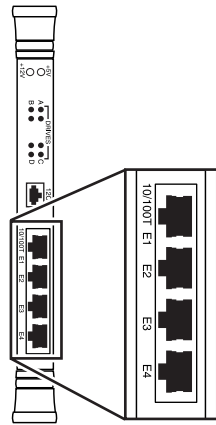
**Figure 26: Connecting the I<sup>2</sup>C cable**



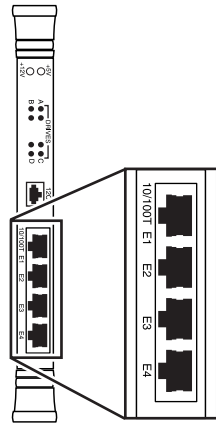
- Review [Table 2](#) and [Table 3](#) before connecting the drive cluster Ethernet cables. How you connect these cables will depend on how many drive clusters are installed in the library. See the following tables for an overview.

If only one drive cluster is installed in the library, refer to [Table 2](#). If two or more drive clusters are installed, refer to [Table 3](#) on page 49.

**Table 2: Single drive cluster**



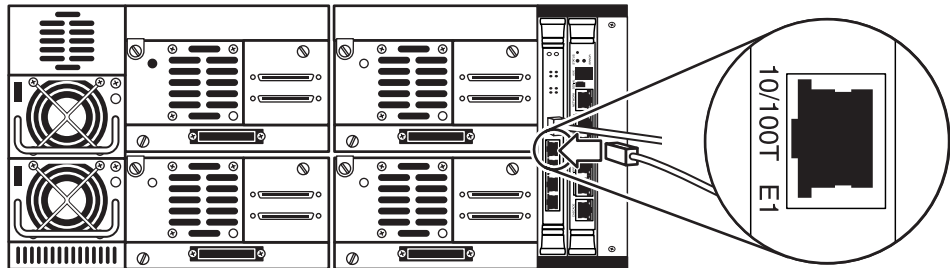
Drive Cluster	Cluster controller Ethernet port	Ethernet cable
0	E1	Cabinet controller
	E2	Interface Manager card
	E3	e2400-160 interface controller
	E4	e1200-160 robotics controller

**Table 3: Multiple drive clusters**

Drive Cluster	Cluster controller Ethernet port	Ethernet cable
0	E1	Cabinet controller
	E2	Interface Manager card
	E3	e2400-160 interface controller
	E4	Daisy-chain to lower cluster controller
1	E1	Daisy-chain to upper cluster controller
	E2	e1200-160 robotics controller
	E3	e2400-160 interface controller
	E4	Daisy-chain to lower cluster controller
2 through 5	E1	Daisy-chain to upper cluster controller
	E2	Not used
	E3	e2400-160 interface controller
	E4	Daisy-chain to lower controller (not used for cluster 5)

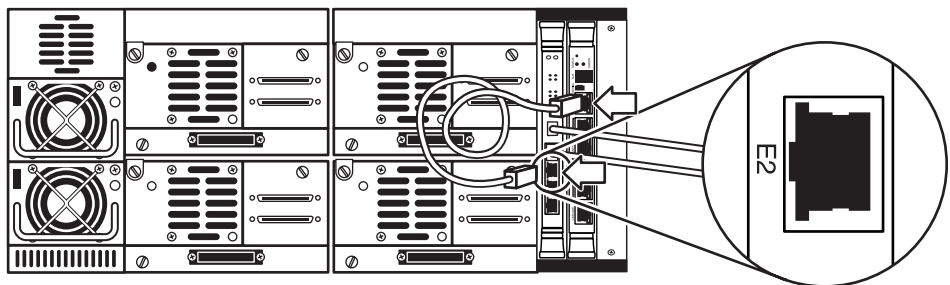
4. Connect the 7 ft black Ethernet cable attached to the cabinet controller at the bottom of the library to Ethernet port “E1” on drive cluster 0 (see [Figure 27](#)). The cable is connected to the cabinet controller in the factory and should be hanging in the channel on the right side of the cabinet.

**Figure 27: Connecting the cabinet controller Ethernet cable**



5. Connect a 1 ft white Ethernet cable from the Ethernet port “Network” on the Interface Manager card to Ethernet port “E2” on the cluster controller next to the Interface Manager card (see [Figure 28](#)).

**Figure 28: Connecting the Ethernet cable to the Interface Manager card**

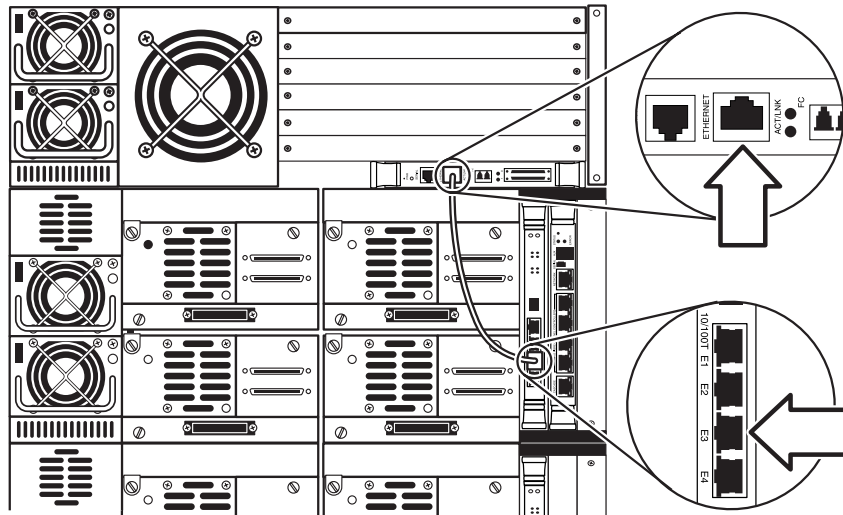


6. If more than one drive cluster is installed in the library:
  - a. Connect the 3 ft green Ethernet cable from Ethernet port “E2” on the cluster controller in drive cluster 1 to the Ethernet port on the robotics controller card (e1200-160) located in the bottom slot of the card cage at the top of the library cabinet (see [Figure 29](#)).
  - b. Proceed to [step 7](#).

If only one drive cluster is installed in the library:

- a. Connect the 3 ft green Ethernet cable from Ethernet port “E4” on the cluster controller to the Ethernet port on the robotics controller card (e1200-160) located in the bottom slot of the card cage at the top of the library cabinet (see [Figure 29](#)).
- b. Proceed to “[Installing tape drives](#)” on page 53.

**Figure 29: Connecting the Ethernet cable to the robotics controller card (e1200-160)**



7. If more than one drive cluster is installed in the library, add the 1 ft gray Ethernet cable from Ethernet port “E4” on the cluster controller in drive cluster 0 to Ethernet port “E1” on the cluster controller in drive cluster 1 (see [Figure 30](#)).

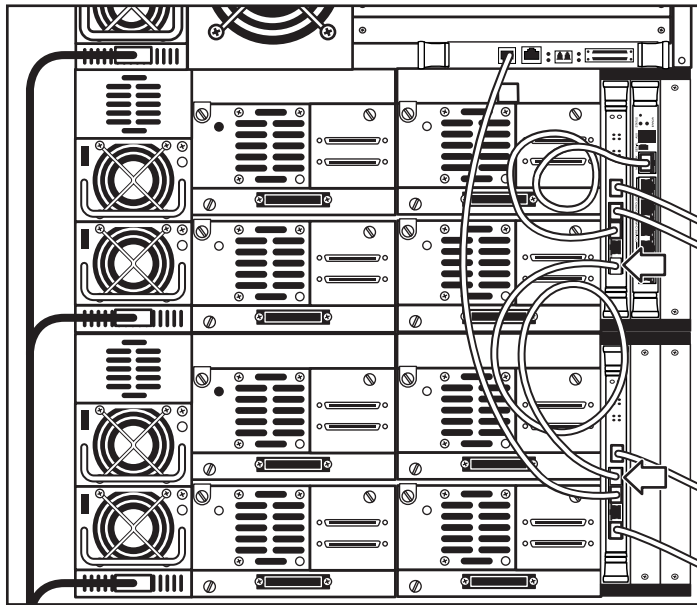
Continue daisy-chaining until you have done this procedure for all the drive clusters.

---

**Note:** When daisy-chaining the drive clusters, do so from Ethernet port “E4” on the top cluster to Ethernet port “E1” on the cluster below. This will help keep the cables clear from the other Ethernet cables on the cluster controller card.

---

**Figure 30: Daisy-chaining drive clusters**





## Installing tape drives



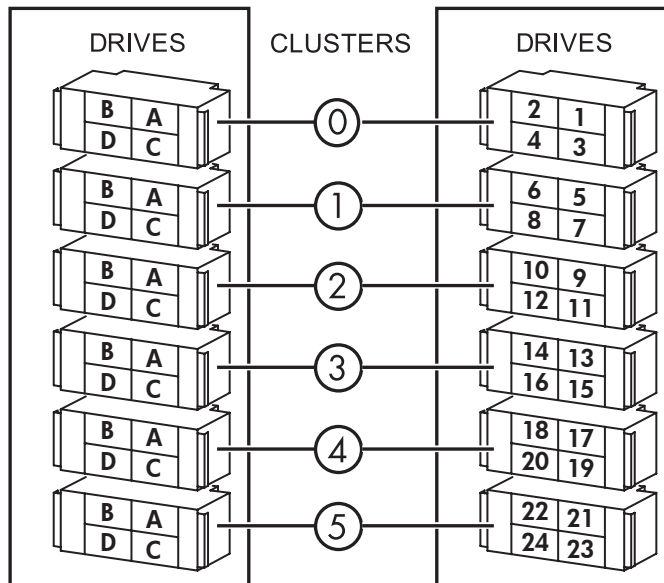
**Caution:** Parts can be damaged by electrostatic discharge. Keep parts in their containers until needed. Ensure you are properly grounded when touching static-sensitive components.

Drive kits ship separately from the library. Depending on the configuration you will have one to 24 drives to install.

A drawing showing the cluster numbering and drive positioning is located inside the back door (see [Figure 31](#)). Drive clusters are numbered starting at the top of the cabinet as follows: 0, 1, 2, 3, 4, 5. In each cluster the drives are lettered as follows: top right is A, top left is B, bottom right is C, bottom left is D.

1. Open the kits and inspect their contents for potential damage or missing parts.

**Figure 31: Cluster and drive numbering**



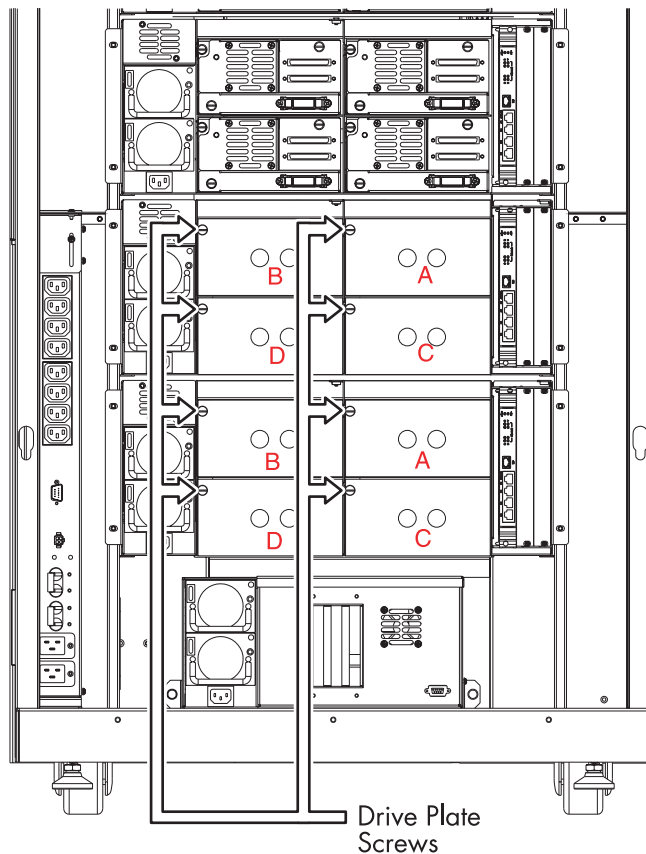
2. Using a #2 Phillips screwdriver, remove the plate covering the back of the drive bay for each drive you need to install (see [Figure 32](#)).

---

**Note:** Drive bays must be populated in sequential order beginning with drive bay A, then B, C, and finally D.

---

**Figure 32: Preparing the drive bay**

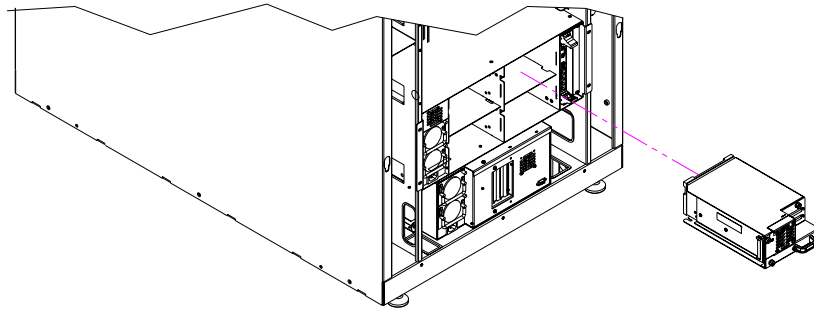


- Slide each tape drive into an open bay in the drive cluster (see [Figure 33](#)).



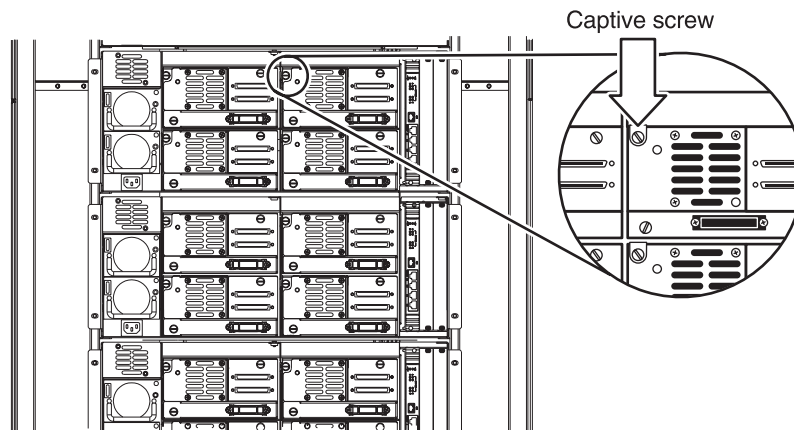
**WARNING:** Do not place your hand or arm into the open cluster channel. Library should be powered off for this procedure but if it is not, moving assemblies may be present.

**Figure 33: Installing a tape drive**



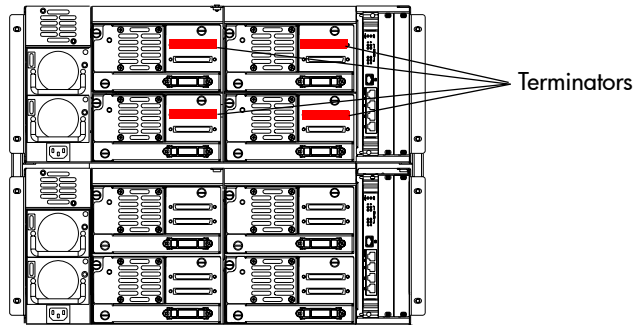
- Using a flat-head screwdriver, secure the drive by tightening the black captive screw in the upper left corner of each drive module (see [Figure 34](#)).

**Figure 34: Tightening the captive screw**



5. SCSI terminators are supplied with each drive. Attach a SCSI terminator to the top SCSI port on each drive (see [Figure 35](#)).

**Figure 35: Attaching SCSI terminators**



---

**Note:** The drive SCSI cables ship with the e2400-160 Interface Controller included separately from the library. The cables will be installed after the interface controllers have been installed.

---

## Installing Fibre Channel interface controllers



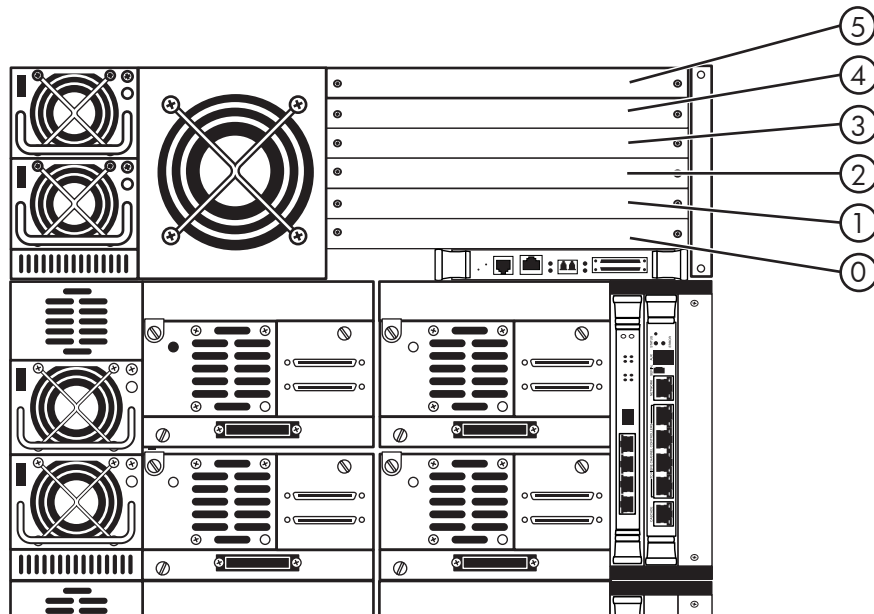
**Caution:** Parts can be damaged by electrostatic discharge. Keep parts in their containers until needed. Make sure that you are properly grounded when touching static-sensitive components.

The HP StorageWorks e2400-160 interface controller ships separately from the library. One interface controller is required per drive cluster, supporting up to four tape drives.

1. Open the kits and inspect for potential damage or missing parts.
2. Identify the proper slot in the card cage for the e2400-160 interface controller(s).

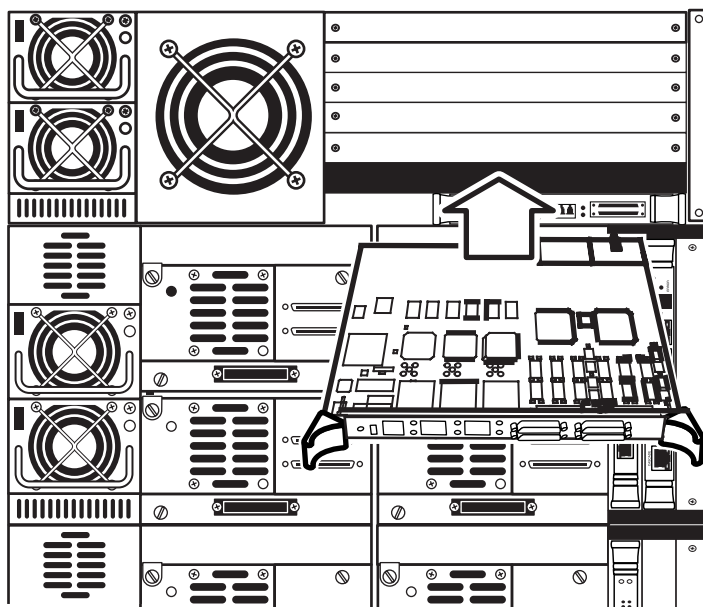
Use the top six slots, referenced in [Figure 36](#) as “0” through “5” to match the numbering of the corresponding drive clusters. For example, drive cluster 0 should correspond to controller 0. Consequently, the interface controllers should be installed beginning with the lowest available slot in the card cage.

**Figure 36: Identifying e2400-160 interface controller slots**



3. Using a small #2 Phillips screwdriver, remove a slot cover for each interface controller you need to install.
4. With the SCSI ports located to your right as you face the back of the library, slide the controller into the lowest available slot in the card cage until it is seated and the ejector latches lock in place.
5. Tighten the captive screws using a #2 Phillips screwdriver (see [Figure 37](#)).

**Figure 37: Installing the e2400-160 interface controller**



6. Repeat [step 1](#) through [step 5](#) for each interface controller to be installed.

---

**Note:** The e2400-160 interface controller ships with cabling components which will be installed in the next section, "[Cabling the library](#)" on page 59.

---

## Cabling the library

The following sections include procedures for cabling the cabinet controller SCSI cable, the drive SCSI cable(s), the e2400-160 interface controller Ethernet cable(s), and the Fibre Channel cable(s).

### Connecting the cabinet controller SCSI cable

1. Connect a SCSI cable to the cabinet controller located at the base of the library, and route it up through the cable access holes to the right of the drive clusters (see [Figure 38](#) on page 60).

---

**Note:** The SCSI cable that connects to the cabinet controller ships in the library accessory kit.

---

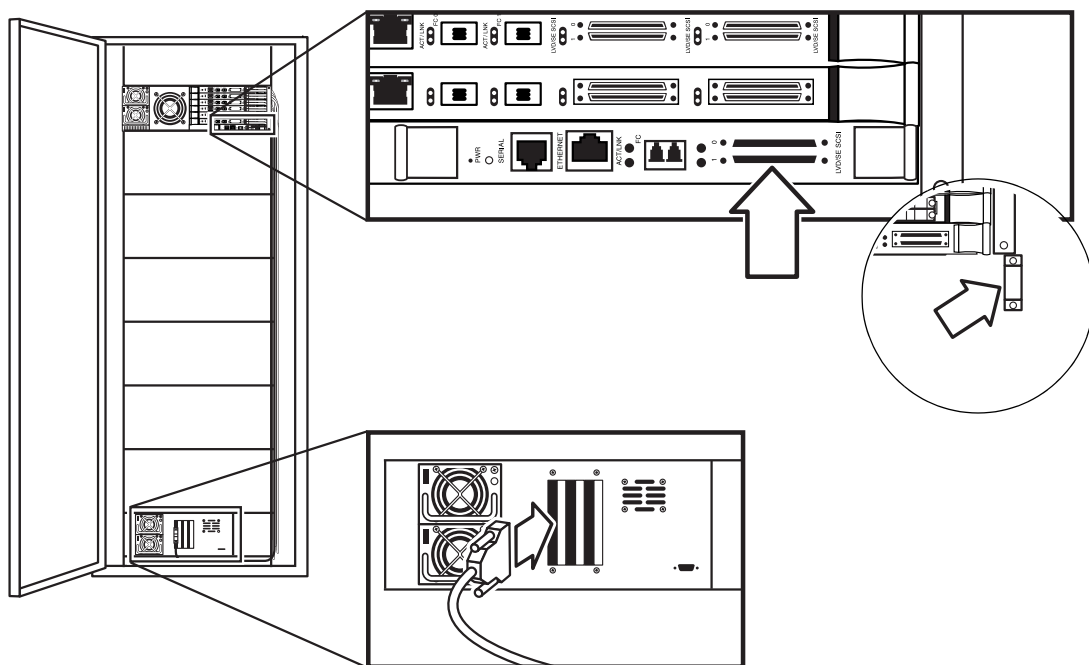
2. Continue routing through the cluster cable clamp at the top right of the uppermost drive cluster.
3. Connect the other end to the robotics controller card (e1200-160), located in the card cage at the top of the library, at Port 1 (see [Figure 38](#)).

---

**Note:** It does not matter which SCSI port is used on the robotics controller card. However, for ease of access, HP recommends that you use the lower one (port 1).

---

**Figure 38: Connecting the robotics controller card (e1200-160)**





## Connecting drive SCSI cable(s)

---

**Note:** Each e2400-160 interface controller card ships with four SCSI cables, one Ethernet cable, and seven sets of color coded tie wraps. *Fibre Channel cables are not provided.* These parts will be needed for the following procedures.

---

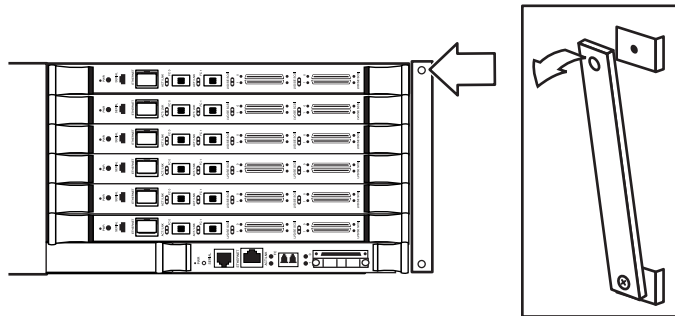
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**Note:** A step stool may be needed to reach the e2400-160 interface controllers in the card cage located at the top of the library cabinet.

---

1. Remove the top screw from the cable restraint bracket and loosen the bottom one to prepare for cable routing (see [Figure 39](#)).

**Figure 39: Preparing the cable restraint bracket**

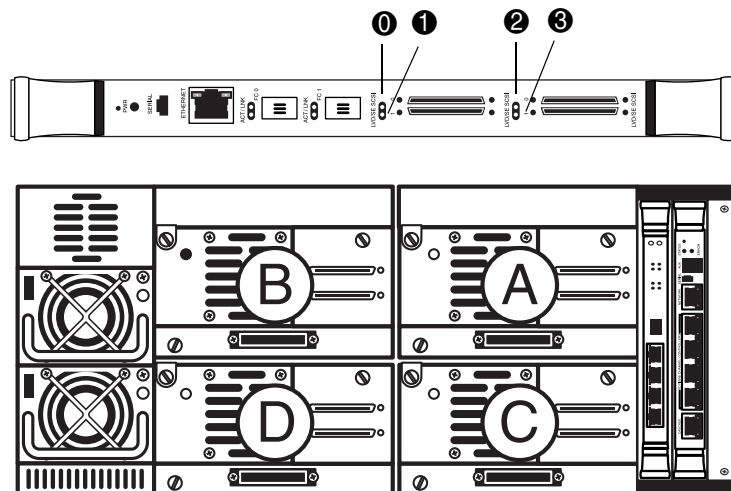


2. Connect the SCSI cables from the drives in drive cluster 0 to the e2400-160 interface controller in slot 0 of the card cage (see [Figure 41](#)).

---

**Note:** Drive SCSI cables are labeled "A", "B", "C", and "D" on the drive end to indicate the drive location. Drive SCSI cables are labeled "0", "1", "2", and "3" on the Fibre Channel interface controller end to indicate the SCSI port location. The most efficient order for making these connections is as follows:

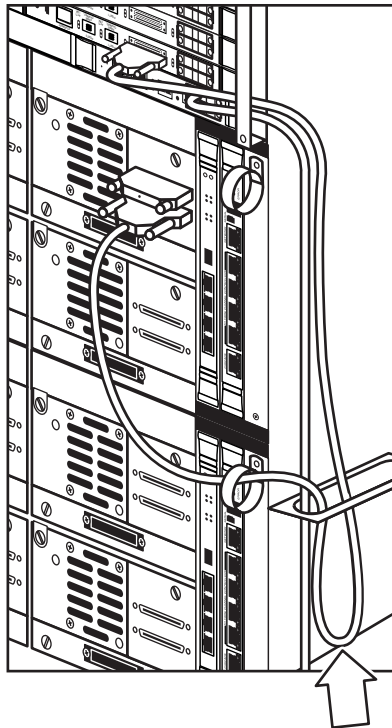
1. Connect a SCSI cable from drive D to port 3 on the interface controller.
2. Connect a SCSI cable from drive B to port 1 on the interface controller.
3. Connect a SCSI cable from drive C to port 2 on the interface controller.
4. Connect a SCSI cable from drive A to port 0 on the interface controller.



- a. Attach a SCSI cable to the drive port.
- b. Tighten the screws to secure the cable to the drive port using a flathead screwdriver.
- c. Route it through the cable access holes in the sheet metal on the right of the library cabinet.

For drive clusters 0 through 2, dip the excess cable length down into the upper cable access hole. For drive clusters 3 through 5, route the cables up through the lower and upper access holes. Push the first set of cables to the back of the library to create space for additional cables. This will help prevent the cables from becoming tangled. See [Figure 40](#).

**Figure 40: Managing drive SCSI cables**



**Caution:** When routing cables through the cable access holes, be careful not to dislodge or damage the I<sup>2</sup>C cable attached to the cluster controller card.

- d. Continue routing the cable up through the cable restraint bracket located to the right of the card cage and attach the cable to the corresponding SCSI port on the e2400-160 interface controller.

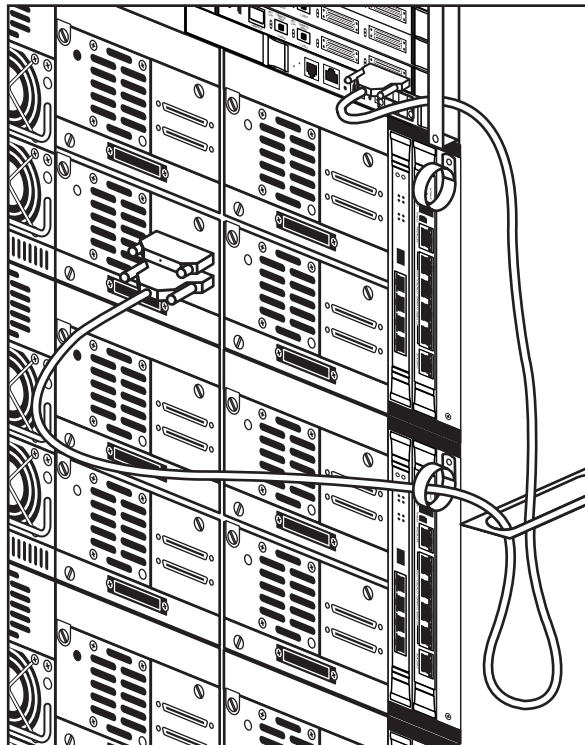
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**Note:** Tighten the SCSI connector screw on the left and then the right for easier installation due to cable interference. Pull the cable toward you to provide more clearance when tightening the right connector screw.

---

- e. Repeat [step a](#) through [step d](#) until all drives are connected.
- f. If you have a partially filled cluster, route the SCSI cables for the drives that are not present in preparation for adding them in the future.

**Figure 41: Attaching SCSI cables**



3. The e2400-160 interface controller ships with several sets of tie wraps. Each color set should be used to designate a different drive cluster (see [Figure 42](#)).

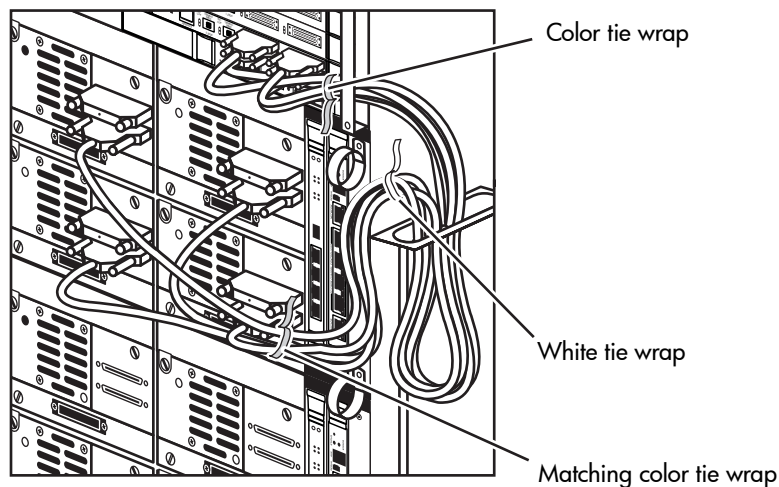
---

**Note:** Ensure that different colors of tie wraps are used for each drive cluster and e2400-160 interface controller combination. If you have multiple sets of the same color, do not use them within the same library. Colors help identify which SCSI cables are associated with which cluster.

---

- a. Take one colored tie wrap and use it to group the cluster's SCSI cables together on the SCSI port end of the tape drives. Attach it between the cluster cable clamp and the SCSI ports.
- b. Take the second tie wrap of the same color and use it to group the cluster's SCSI cables together nearest to the SCSI port end of the e2400-160 interface controllers. Attach it between the cluster cable restraint bracket and the SCSI ports.
- c. Take one white tie wrap and use it to group the cluster's SCSI cables together near the cable access holes in the sheet metal on the right of the library cabinet.

**Figure 42: Attaching the tie wraps**

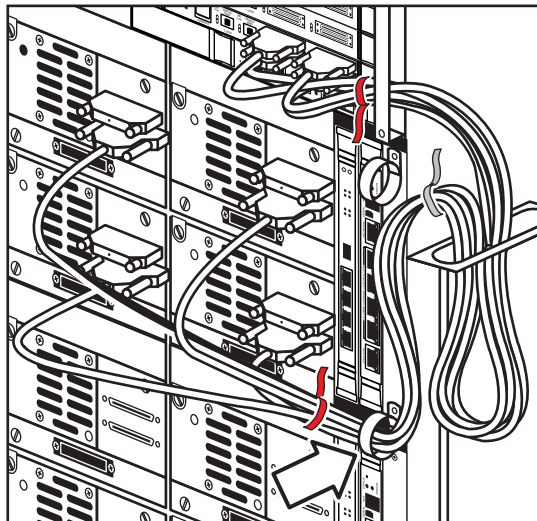


**Note:** The other white tie wraps are provided as spares.

---

4. Route the SCSI cables through the cluster cable clamp on the lower right corner of the cluster frame (see [Figure 43](#)).
  - a. Using a #2 Phillips screwdriver, remove the screw from the clamp.
  - b. Route the SCSI cables through the clamp.
  - c. Secure the clamp to the cluster frame by replacing the screw.

**Figure 43: Routing through the cluster cable clamp**



5. Repeat [step 1](#) through [step 4](#) for each Fibre Channel interface controller and drive cluster combination installed in the library.

## Connecting drive cluster Ethernet cable(s)

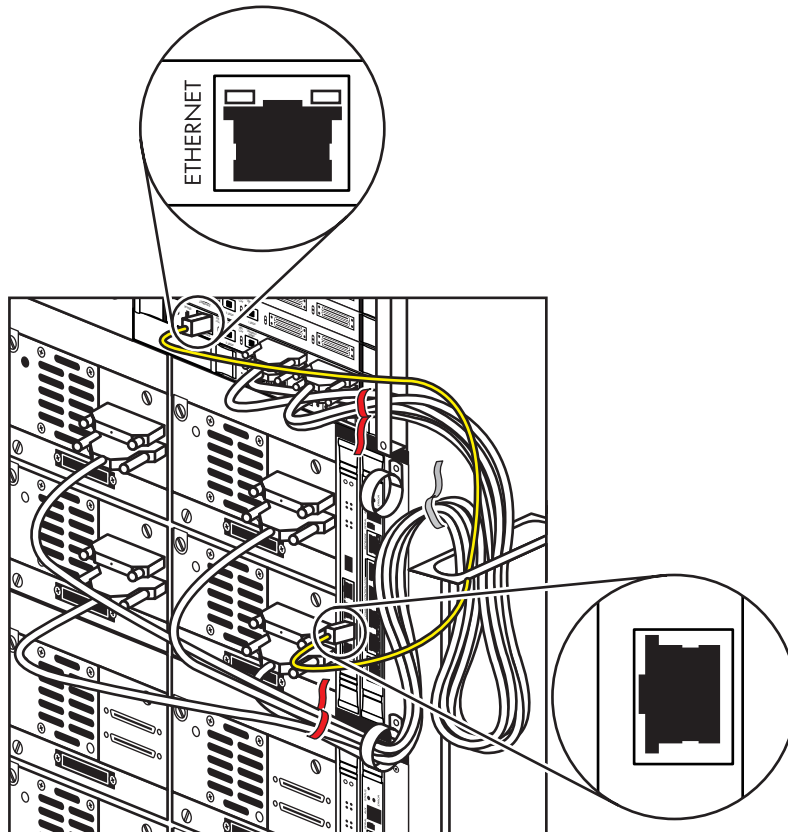
1. Connect an Ethernet cable to the cluster controller card at port “E3”.
2. Route the cable through the cable access holes on the right side of the library.
3. Connect the cable to the Ethernet port on the corresponding e2400-160 interface controller (see [Figure 44](#)). For example, connect the cluster controller card in drive cluster 0 to the interface controller in slot 0 of the card cage.

---

**Note:** Refer to [Table 2](#) and [Table 3](#) on page 49 for an overview of drive cluster Ethernet cabling.

---

**Figure 44: Connecting Ethernet cable to the e2400-160 interface controller**

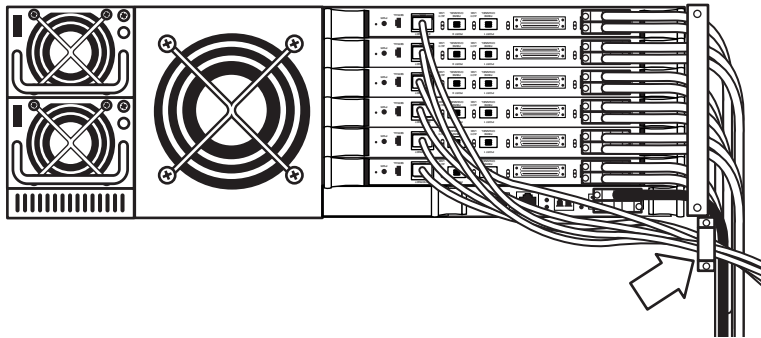


**Note:** If necessary, loop the cable and bind it with a spare white tie wrap in the cable channel to help take up any slack.

---

4. Repeat [step 1](#) through [step 3](#) for each drive cluster and interface controller combination.
5. Open the cable clamp located on the upper right side of the top drive cluster by removing the screw. Route the Ethernet cables through the cable clamp, and then reattach the screw to secure it to the drive cluster (see [Figure 45](#)).

**Figure 45: Routing Ethernet cables through the cable clamp**

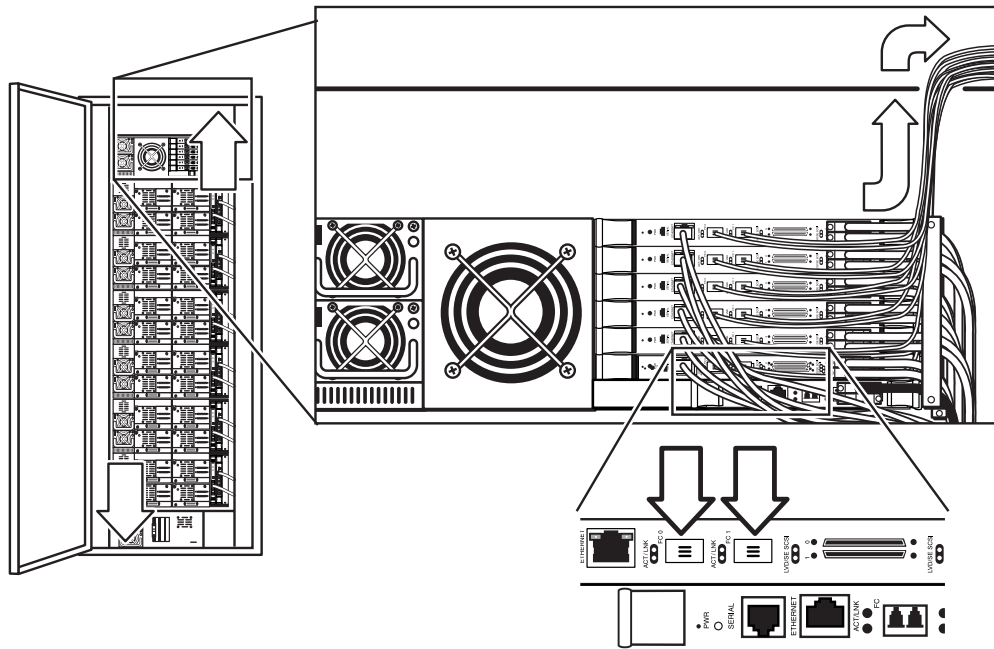




## Connecting Fibre Channel cables

1. Connect the Fibre Channel cables from the e2400-160 interface controllers, through an access hole in the library cabinet, and to a switch or Host Bus Adapter (HBA) (see [Figure 46](#)).
  - a. Attach a Fibre Channel cable (one per every two drives) to the e2400-160 interface controller. If you are only attaching one cable, attach it to port 0.
  - b. Attach a Fibre Channel cable to the e1200-160 robotics controller card located below the e2400-160 interface controller(s) in the card cage.
  - c. Route the cable(s) through access holes on the top or bottom of the library cabinet.
    - If routing through the top of the cabinet, use a Phillips screwdriver to remove the plate covering the top access hole.
    - If routing through the bottom of the library cabinet, route the cable(s) down the left side of the library next to the power cables.
  - d. Route the Fibre Channel cable(s) to a switch or HBA.

### Figure 46: Connecting Fibre Channel cables



## Connecting the cabinet controller LAN cable

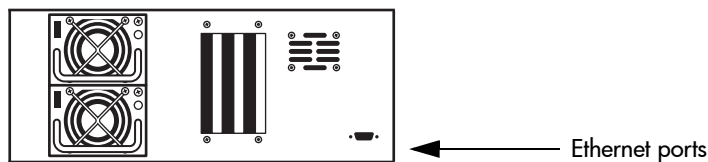
1. Route your LAN Ethernet cable up through the bottom of the library cabinet through the cable access hole on the right side as you face the back of the library.
2. Attach the cable to the front Ethernet port on the cabinet controller located at the base of the library. The ports are on the right side toward the back of the cabinet controller.

---

**Note:** There are two Ethernet ports on the right side of the cabinet controller. One port is for the cable that routes to the service port behind the laptop tray on the front of the library. This cable is factory installed. The second port should be vacant and is available for connecting to your local network.

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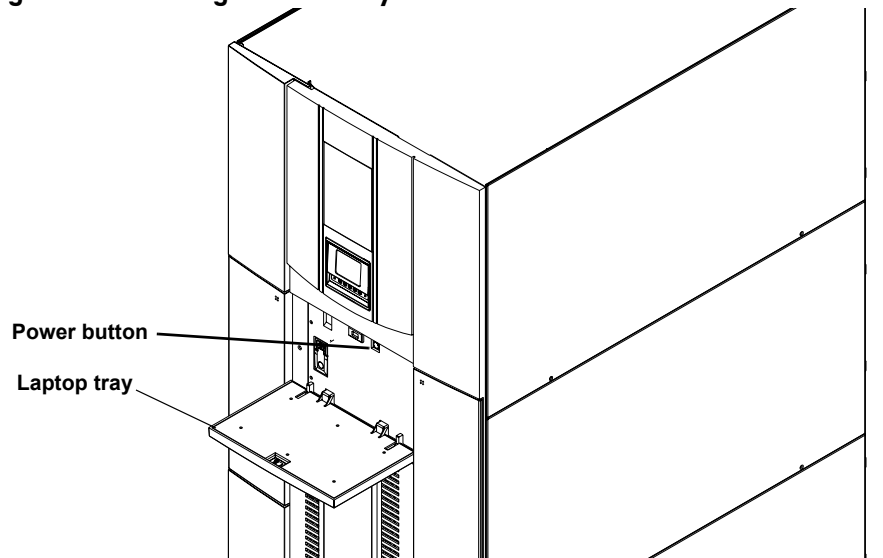
**Figure 47: Connecting the cabinet controller LAN cable**



## Powering on the library

You are now ready to power on the library and ensure that all components are functioning properly (see [Figure 48](#)).

**Figure 48: Powering on the library**



**Note:** Normally, all library doors should be closed before powering on the library; however, to confirm that all components are functioning properly after the initial installation, leave the back library door open.

1. Press the power button located behind the laptop tray on the front of the library.
2. After several minutes, verify that the current state of the library appears in the **System State** display on the front panel (“**System On-line**” or “**System Off-Line**”).
3. Make sure that LEDs on the power supplies, tape drives, terminators, the interface manager card, and controllers indicate a normal (green) state.
4. Close the library’s back door and continue to “[Loading Tape Cartridges](#)” in the next chapter.



# Loading Tape Cartridges

## 3

Before configuring the library you need to load the appropriate tape cartridges (Ultrium 460 or SDLT 320).

This chapter includes the following sections:

- [Preparing tape cartridges](#), page 74
- [Loading tape cartridges \(model 712e\)](#), page 81
- [Loading tape cartridges \(model 630e\)](#), page 86

## Preparing tape cartridges



**Caution:** Handle tape cartridges with care. Do not drop or mishandle them, or place them near sources of electromagnetic interference. Rough handling can damage the cartridge, making it unusable and potentially hazardous to the tape drives.

---

## Labeling tape cartridges



**Caution:** The misuse and misunderstanding of bar code technology can result in backup and restore failures. To ensure that your bar codes meet HP's quality standards, always purchase them from an approved supplier and never print bar code labels yourself. For more information, refer to the order form provided with the library, as well as the *Bar Code Label Requirements, Compatibility and Usage* white paper available from <http://www.hp.com/support>.

---

**Note:** For information on ordering tape cartridges and bar code labels, refer to the ordering sheet that shipped with your library.

---

Attaching a bar code label to each tape cartridge enables the library and application software to identify the cartridge quickly, thereby speeding up inventory time. Make it a practice to use bar code labels on your tape cartridges. Your host software may need to keep track of the following information and the associated bar code:

- Date of format or initialization
- Tape's media pool
- Data residing on the tape
- Age of the backup
- Errors encountered while using the tape (to determine if the tape is faulty)

## Ultrium bar code labels

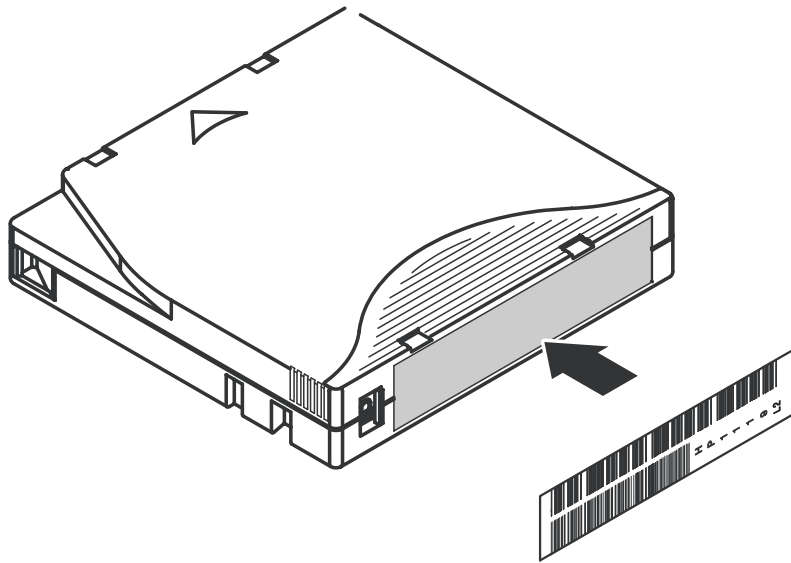
Ultrium cartridges have a recessed area located on the face of the cartridge next to the write-protect switch. Use this area for attaching the adhesive-backed bar code label (see [Figure 49](#)). Do not apply labels onto the cartridge except in this designated area.



**Caution:** The bar code label should be applied as shown in [Figure 49](#) with the alphanumeric portion facing the hub side of the cartridge. Never apply multiple labels onto a cartridge, because extra labels can cause the cartridge to jam inside a tape drive.

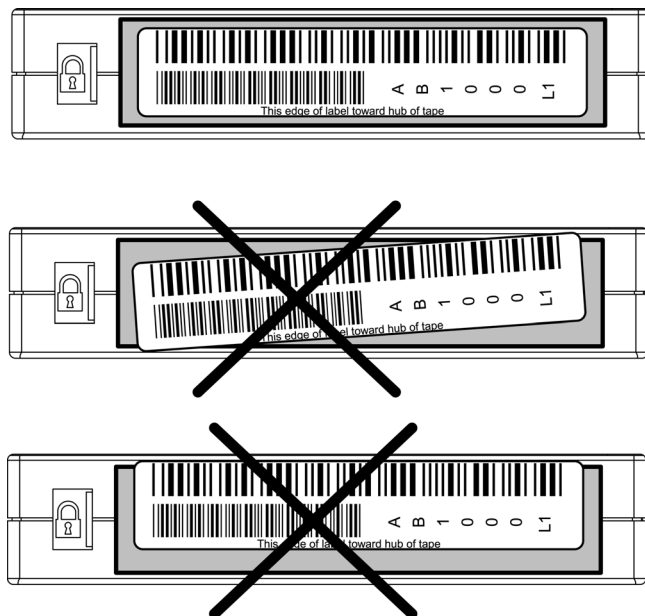
---

**Figure 49: Attaching an Ultrium bar code label**



For successful operation of your tape library, place the bar code label *entirely* within the recessed area, ensuring that no part of the label is outside of it (see [Figure 50](#)).

**Figure 50: Proper Ultrium bar code label placement**





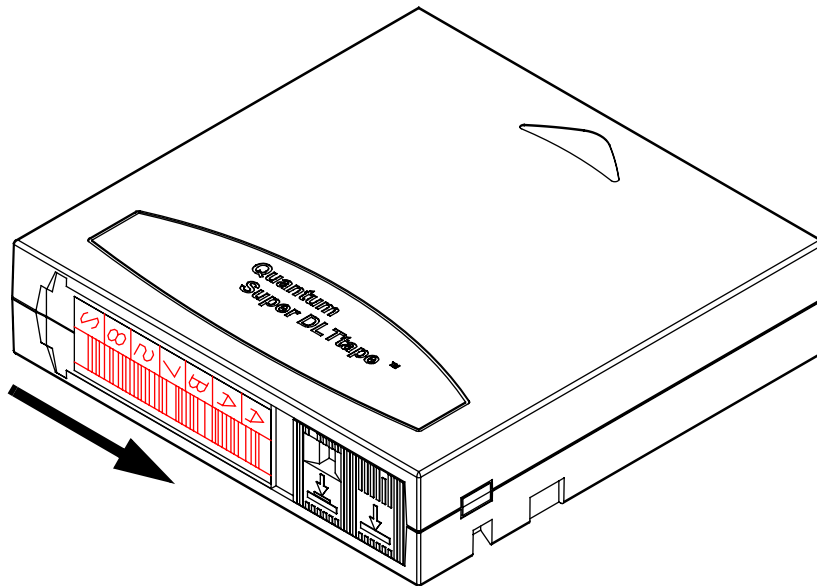
## SDLT bar code labels

SDLT cartridges have a front slide slot located on the face of the cartridge next to the write-protect switch (see [Figure 51](#)). Use this slot for inserting the bar code label by sliding it into the slot.



**Caution:** Do not apply labels onto the top, bottom, sides, or back of the cartridge as this may cause damage to the tape drive, or interfere with reliable operation.

**Figure 51: Inserting an SDLT bar code label**



## Media label identifiers

Be sure to use the proper bar code labels for your drive technology. [Table 4](#) lists the identifier that is found at the end of 7- or 8-character SDLT and Ultrium bar code labels.



**Caution:** To ensure that your bar codes meet HP's quality standards, always purchase them from an approved supplier and never print bar code labels yourself. For more information, refer to the order form provided with the library, as well as the *Bar Code Label Requirements, Compatibility and Usage* white paper available from <http://www.hp.com/support>.

---

**Table 4: Media Label Identifiers**

Cartridge Type	Density	Label Identifier
SDLT	110/220 GB	S or S1
SDLT	160/320 GB	S or S2
Ultrium 230	100/200 GB	L1
Ultrium 460	200/400GB	L2

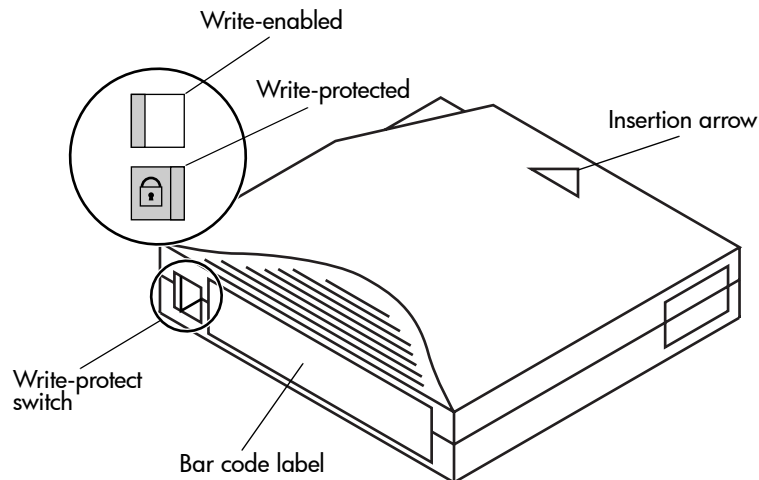
## Setting the write-protect switch

Each tape cartridge has a sliding write-protect switch. This switch determines whether new data can be written to the tape cartridge (write-enabled) or whether data on the tape cartridge is protected from being erased or overwritten (write-protected).

### Write-Protecting Ultrium tape cartridges

By moving the switch to the left ([Figure 52](#)), the tape cartridge is write-enabled. By moving the switch to the right ([Figure 52](#)), the tape cartridge is write-protected.

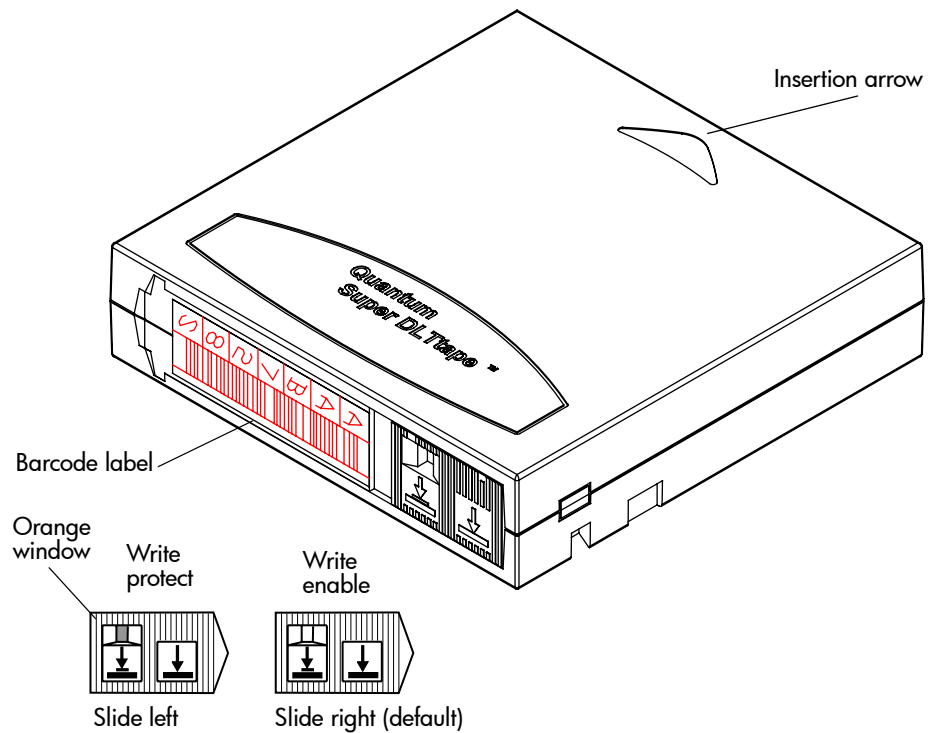
**Figure 52: Write-protecting Ultrium tape cartridges**



## Write-protecting SDLT tape cartridges

By moving the switch to the left (Figure 53), the tape cartridge is write-protected (orange indicator is visible). By moving the switch to the right (Figure 53), the tape cartridge is write-enabled (orange indicator is not visible).

**Figure 53: Write-protecting SDLT tape cartridges**



## Loading tape cartridges (model 712e)

The library stores tape cartridges in the following locations:

- Left panels
- Right panels
- Back panels

---

**Note:** The number of tape cartridge slots depends on the drive technology used. The number of back panel slots depends on how many drive clusters are in the library.

---

**Table 5: Ultrium library storage elements**

Load ports used	Magazine type	Load port capacity	User slots <sup>1</sup>
0	Fixed	0	718
Left only	Fixed	18	700
Right only	Fixed	36	682
Both	Fixed	54	664

1. The total user slots were calculated based on the library having one drive cluster and five back panels installed.

---

**Note:** If the load ports are configured, those slots cannot be used as data slots.

---

To slide the slot panels out of the cabinet, press the slot panel latches down and pull the slot panel out of the cabinet (see [Figure 58](#)).

**Figure 54: Sliding the slot panels out of the cabinet**

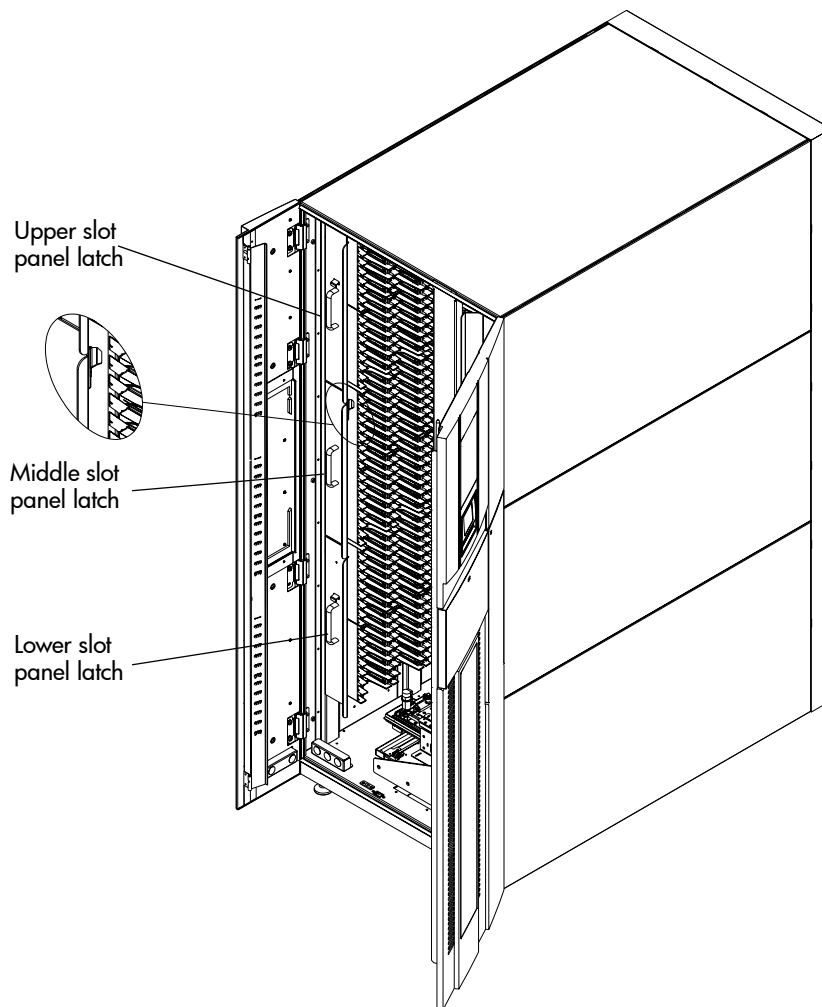


Figure 55 shows the left panel bins. Begin with panel 1 and load left to right and top to bottom. Continue with panel 2 in the same manner, and finally, panel 3.

**Figure 55: Bin shelf numbering, Ultrium 460 (left panels)**

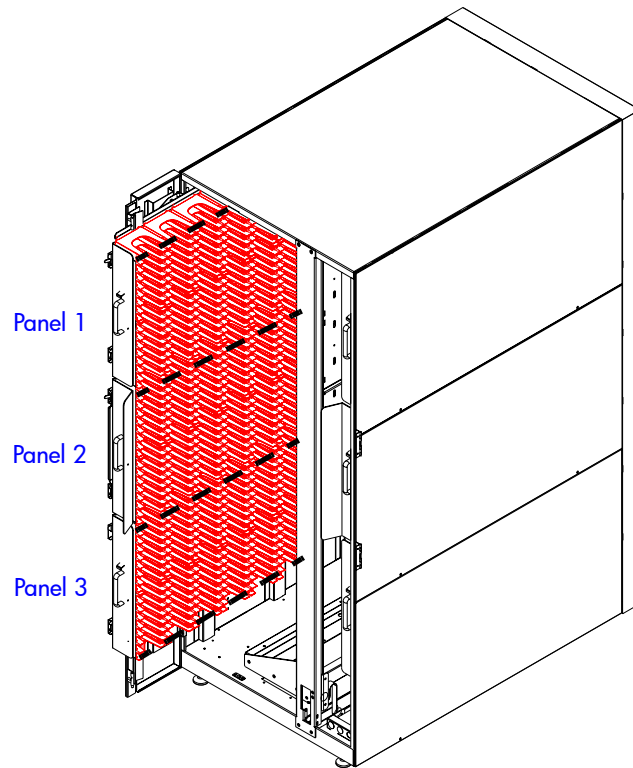


Figure 56 shows the right panel bins. Begin with panel 4 and load left to right and top to bottom. Continue with panel 5 in the same manner, and finally, panel 6.

**Figure 56: Bin shelf numbering, Ultrium 460 (right panels)**

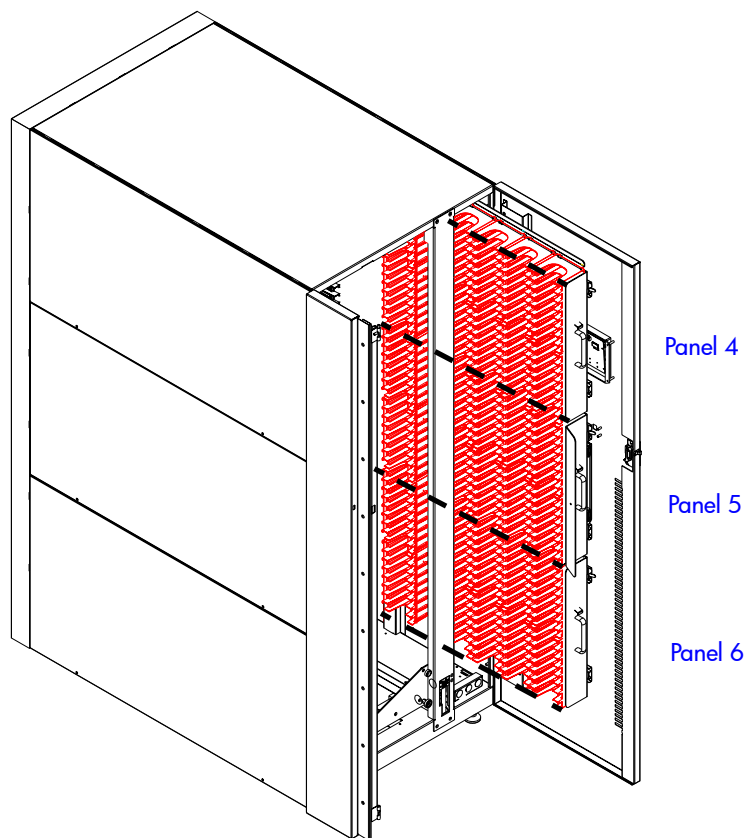




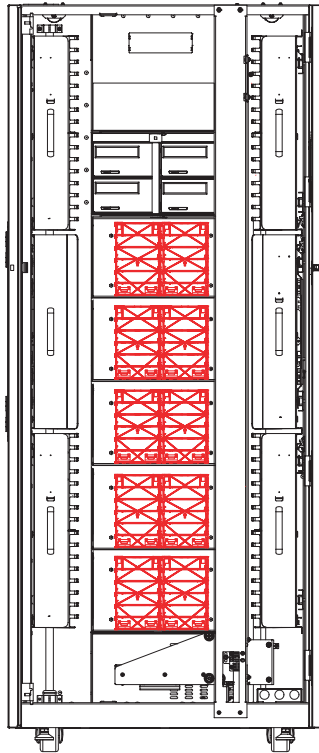
Figure 57 shows the back panel bins. Each column has seven slots.

---

**Note:** The number of slots located in the back panel varies with the number of drive clusters installed.

---

**Figure 57: Bin shelf numbering, Ultrium 460 (back panel)**



Continue to “[Configuring the Library](#)” in the next chapter.

## Loading tape cartridges (model 630e)

The library stores tape cartridges in the following locations:

- Left panels
- Right panels
- Back panels

**Table 6: SDLT library storage elements**

Load ports used	Magazine type	Load port capacity	User slots <sup>1</sup>
0	Fixed	0	636
Left only	Fixed	16	620
Right only	Fixed	32	604
Both	Fixed	48	588

1. The total user slots were calculated based on the library having one drive cluster and five back panels installed.

Load the tape cartridges into the library starting with the left side panels.

---

**Note:** If the load ports are configured, those slots cannot be used as data slots.

---

To slide the slot panels out of the cabinet, press the slot panel latches down and pull the slot panel out of the cabinet (see [Figure 58](#)).

**Figure 58: Sliding the slot panels out of the cabinet**

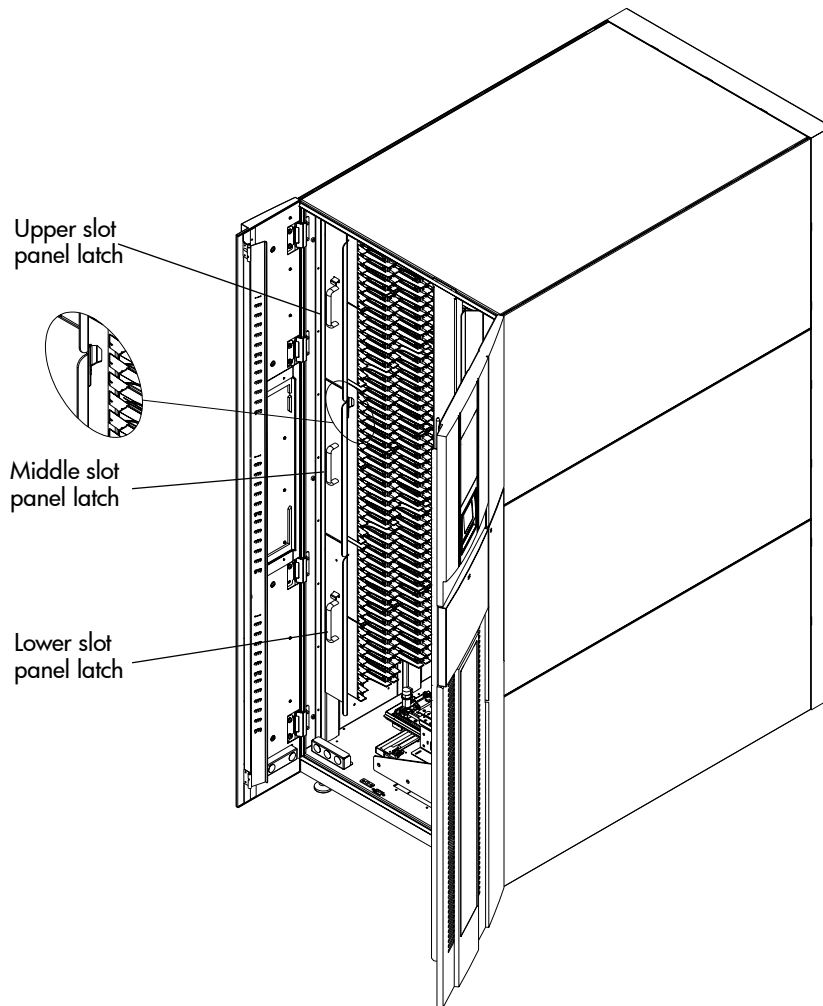


Figure 59 shows the left panel bins. Begin with panel 1 and load left to right and top to bottom. Continue with panel 2 in the same manner, and finally, panel 3.

**Figure 59: Bin shelf numbering, SDLT (left panels)**

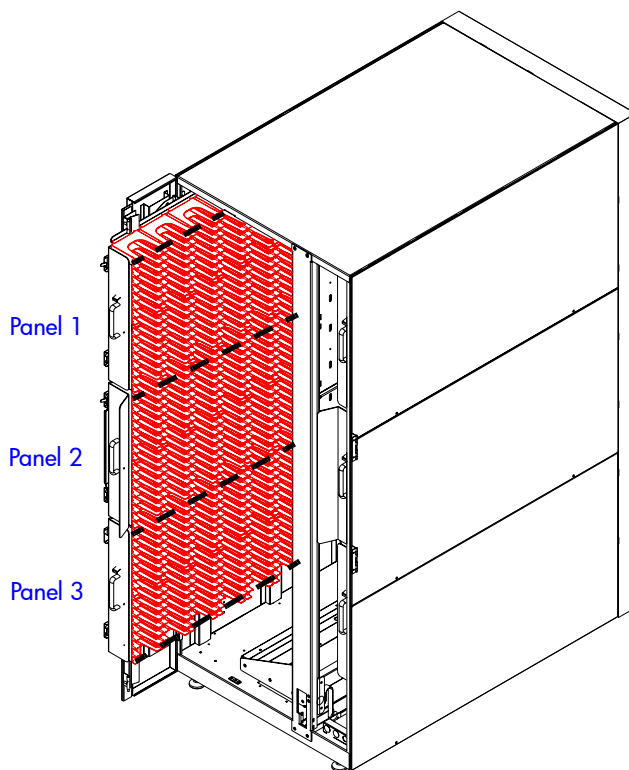


Figure 60 shows the right panel bins. Begin with panel 4 and load left to right top to bottom. Continue with panel 5 in the same manner, and finally, panel 6.

**Figure 60: Bin shelf numbering, SDLT (right panels)**

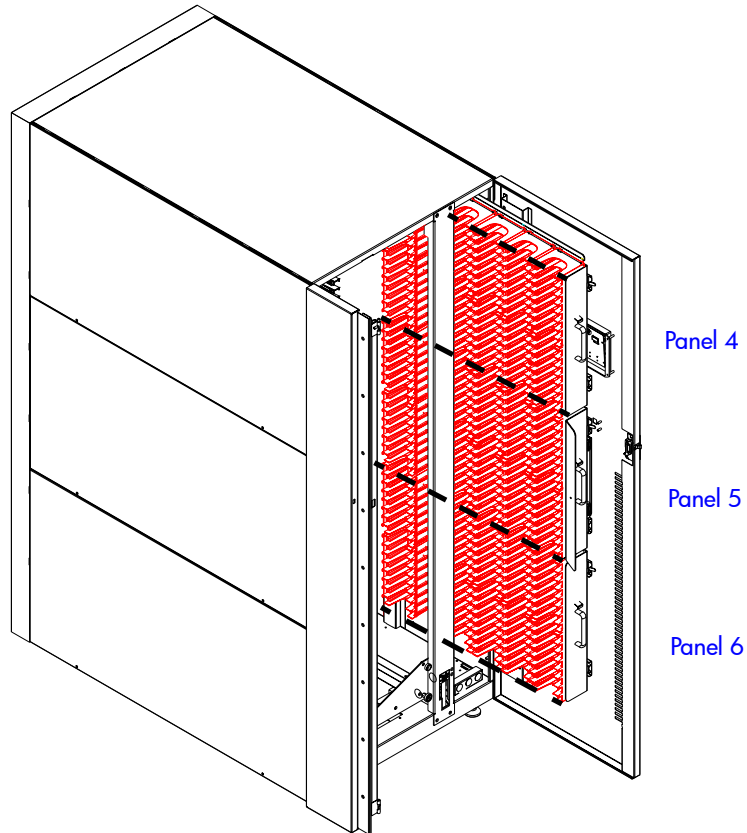


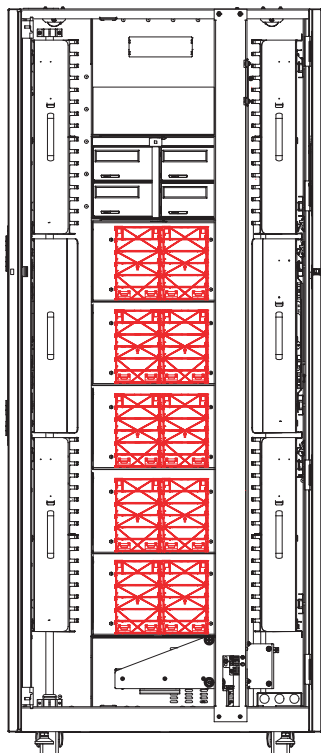
Figure 61 shows the back panel bins. Each column has six slots.

---

**Note:** The number of slots located on the back panel varies with the number of drive clusters installed.

---

**Figure 61: Bin shelf numbering, SDLT (back panel)**



Continue to “[Configuring the Library](#)” in the next chapter.

# Configuring the Library

## 4

This chapter includes the following sections:

- [Configuring tape drives](#), page 92
- [Configuring the IP address](#), page 94
- [Installing and configuring Command View ESL](#), page 98

## Configuring tape drives

If you have a partially filled drive cluster (less than four drives):

1. Select the **Setup** button from the **Menu** screen on the Operator Control Panel (OCP).
2. The library prompts you for a password. Enter the 6 digit password.

---

**Note:** The default password is 001122.

---

3. Use the **Down** button to move to **Configured Drives**.

**Figure 62: Setting up configured drives**

The screenshot shows the HP Setup screen with the following fields and values:

Setup		Offline Door Closed
IP Address	XXX.XXX.XXX.XXX	
IP Subnet Mask	XXX.XXX.XXX.XXX	
IP Gateway	XXX.XXX.XXX.XXX	
DHCP	Disabled	
Change Password	*****	
Restore Factory Setting		
Drive Autoclean	Disable	
Configured Drives	24	←
Left Load Port (18)	Enabled	
Right Load Port (36)	Enabled	
Back	Up	Down
Select	STOP	

4. Press the **Select** button to select **Configured Drives**.
5. Use the **Down** button to change the drive count to the number of installed drives in the library. The default is 24.
6. Press the **Select** button to save your changes.

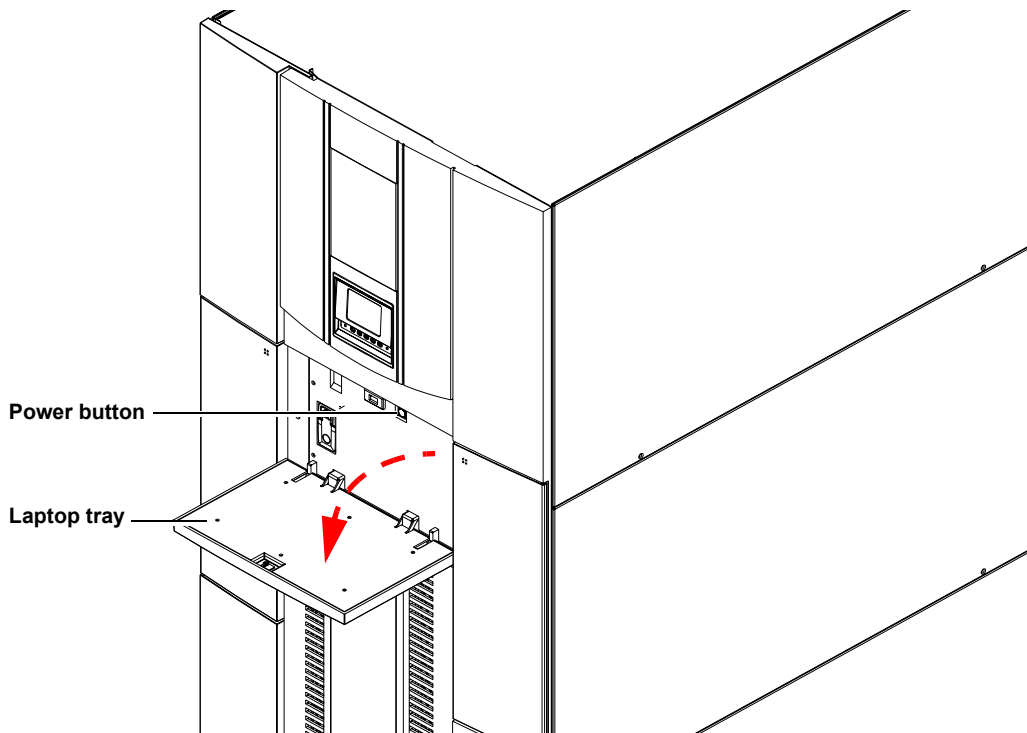


7. A message appears notifying you that the library must be rebooted for this change to take effect. Press **OK**.
8. To reboot the library:
  - a. From the **Main** screen select the **Ops** button.
  - b. Press the **Select** button to select **Cabinet**.
  - c. Use the **Up** or **Down** button to change the setting from **Offline** to **Reboot**.
  - d. Press the **Select** button.
  - e. A confirmation screen appears. Select **Yes**. The library will reboot.

## Configuring the IP address

1. Make sure the library is powered up. If not:
  - a. Press the power button located behind the laptop tray on the front of the library.
  - b. After several minutes, verify that the current state of the library appears in the **System State** display on the front panel (“**System On-line**” or “**System Off-Line**”).

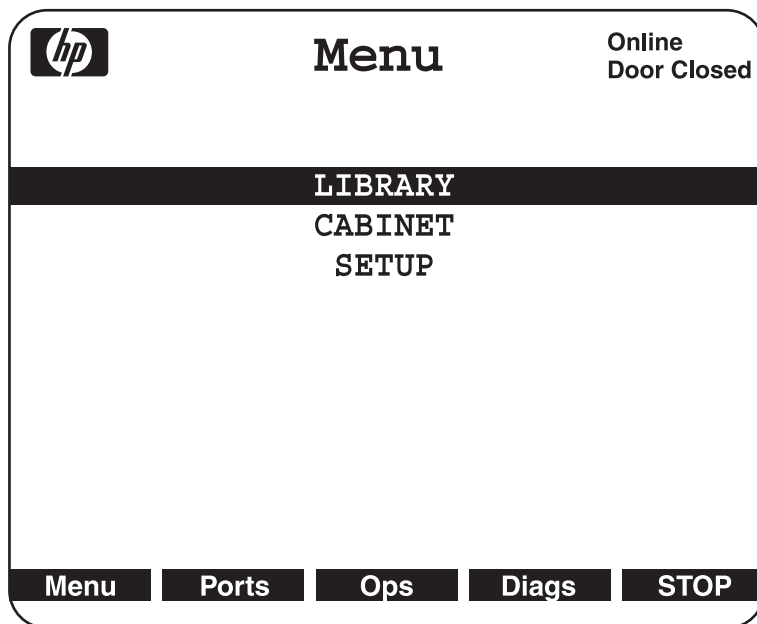
**Figure 63: Powering up the library**



2. When the library completes the boot up sequence and the Operator Control Panel (OCP) is active, press **Menu** from the **Home** screen.

The OCP displays the **Menu** screen (see [Figure 64](#)):

**Figure 64: Menu screen**



3. From the **Menu** screen, use the up and down arrows to highlight **Setup** and press **Select**.
4. The library prompts you for a password. Enter the 6 digit password.

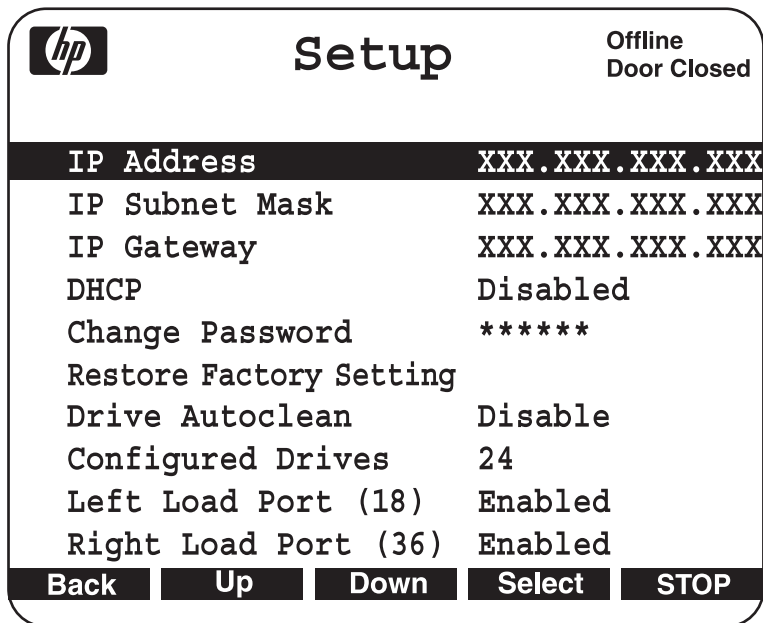
---

**Note:** The default password is 001122.

---

The **Setup** screen displays (see [Figure 65](#)):

**Figure 65: Setup screen**



The Setup screen displays the HP logo, the title 'Setup', and the status 'Offline Door Closed'. Below this is a list of configuration options with their current values. At the bottom are five navigation buttons: Back, Up, Down, Select, and STOP.

<b>IP Address</b>	XXX.XXX.XXX.XXX
<b>IP Subnet Mask</b>	XXX.XXX.XXX.XXX
<b>IP Gateway</b>	XXX.XXX.XXX.XXX
<b>DHCP</b>	Disabled
<b>Change Password</b>	*****
<b>Restore Factory Setting</b>	
<b>Drive Autoclean</b>	Disable
<b>Configured Drives</b>	24
<b>Left Load Port (18)</b>	Enabled
<b>Right Load Port (36)</b>	Enabled

**Back** **Up** **Down** **Select** **STOP**

The **Setup** screen displays the following information:

- IP Address
- IP Subnet Mask
- IP Gateway
- DHCP (default enabled)
- Change Password
- Drive Autoclean
- Left Load Port (16)
- Right Load Port (32)

**Note:** Load port slot numbers will be different for each drive technology (Ultrium is 18 and 36, and SDLT is 16 and 32).

5. To edit the setup information, use the up and down arrows to highlight the section and press **Select**.
  - To set the IP address, subnet mask, and gateway, use the up and down arrows to select the appropriate number and press **Select** to accept.
  - To enable/disable DHCP, use the up and down arrows to toggle between enable/disable. Press **Select** to accept the setting. If your library is not connected to a network which uses a DHCP server to assign IP addresses, disable this function.
  - To change the password, use the up and down arrows to select **Change Password** and press **Select**. To change the password, enter a 6-digit password using the numbers provided on the OCP. Press **Select** to accept the new password. When prompted, re-enter the password to confirm.
  - To enable autoclean, use the up and down arrows to select **Autoclean** and press **Select**.
  - To enable load ports, use the up and down arrows to select the desired load port and press **Select**.
6. When you are finished viewing/editing the setup information, press **Back** to return to the **Menu** screen.

## Installing and configuring Command View ESL

Command View ESL provides a browser-based graphical user interface (GUI) for remote management and monitoring of your Interface Manager card through a LAN. Command View ESL is the preferred user interface for controlling the Interface Manager card. In conjunction with the Interface Manager card, Command View ESL provides the following:

- Configuration and management of the Interface Manager card and Fibre Channel interface controllers
- Monitoring and management of key library components
- Hardware inventory and identity information
- Status information for connected hardware
- Error reporting and comprehensive error logs
- Firmware management
- License management

Command View ESL is installed on the management station and communicates with the Interface Manager card through the LAN. The management station processes information from the Interface Manager card and “serves up” the Command View ESL GUI. Users can access Command View ESL either from the management station directly or through any client on the LAN by using a browser-based GUI interface. Multiple Command View ESL GUI clients can be open simultaneously across the LAN, and multiple ESL E-Series tape libraries can be managed through the Command View ESL software.

### Prerequisites

For the server side, Command View ESL requires a management station (server) with a minimum of:

- Pentium III 500-MHz, 256-MB RAM
- 10/100 Base-T network card

---

**Note:** A static IP address is recommended.

---

- Microsoft Windows 2000 Professional or Server edition SP3, Windows XP Professional

For the client side, Command View ESL requires the following:

- Microsoft Internet Explorer v6.0 SP1 or later, or Netscape Navigator v6.2 or later.

---

**Note:** Make sure that Java support is enabled in the browser.

---

- An internet connection for CommandView ESL to receive firmware and software release information automatically from the HP support website

## Installing Command View ESL

To install Command View ESL software:

1. Insert the Command View ESL software CD into the CD-ROM drive on the management station.
2. If autorun is disabled on the CD-ROM drive, locate and double-click the *setup.exe* file on the CD.
3. Follow the instructions on the screen to complete the installation.
4. Reboot the management station.

Command View ESL is essentially a web server that serves up a GUI interface to web clients. The software runs on the management station as a service. By default, this service starts automatically when the management station is booted, and runs invisibly in the background. In most cases, the default installation settings are adequate.

If you need to stop Command View ESL from running, use the Services applet that is included with Windows. To access the Services applet, click **Start > Settings > Control Panel > Administrative Tools > Services**. Use the Services applet to start and stop services, and to set whether the service is started automatically when the computer is booted. Refer to the online help that comes with the Services applet for more information.

## Starting Command View ESL

To start Command View ESL, open your browser, either on the management station or on a computer that is networked to the management station, and enter the following URL in the address field:

<http://<hostname>:4095/>

---

**Note:** <hostname> is the IP address or network name of the management station. If you are starting Command View ESL on the management station itself, you can substitute `localhost` for the hostname.

---

If the Java Runtime Environment (JRE) plugin is not already installed on your computer and you are using a Windows operating system, Command View ESL will attempt to download and install it for you. If you are prompted to install the JRE plugin, click **OK** and follow the instructions on the screen. If you are using a non-Windows operating system, you will be instructed how to download the JRE plugin. If the JRE plugin is not available, then Command View ESL will not run.

After the JRE is successfully installed, the Command View ESL **Launcher** screen displays.

## Configuring Command View ESL

After installing Command View ESL, you must perform the following configuration steps using the software:

- Set the Command View ESL administrative password
- Verify proxy settings for the management station
- Add all libraries to Command View ESL that will be monitored
- Add the license key for Command View ESL and any additional features that you have purchased
- Configure properties for each library
- Configure host access (Secure Manager)



---

**Note:** For detailed installation and configuration instructions, as well as usage and licensing information, refer to the *HP StorageWorks Interface Manager and Command View ESL User Guide* that shipped with the library. For technical support, go to <http://www.hp.com/support/cvesl>.

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